THE ARCHITECT & BUILDING NEWS

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- LANGDON CRESCENT SECONDARY SCHOOLS, EAST HAM
- CLARK HOUSE, CONNECTICUT

31 DECEMBER 1953 · VOL. 204 · NO. 27 · ONE SHILLING WEEKLY

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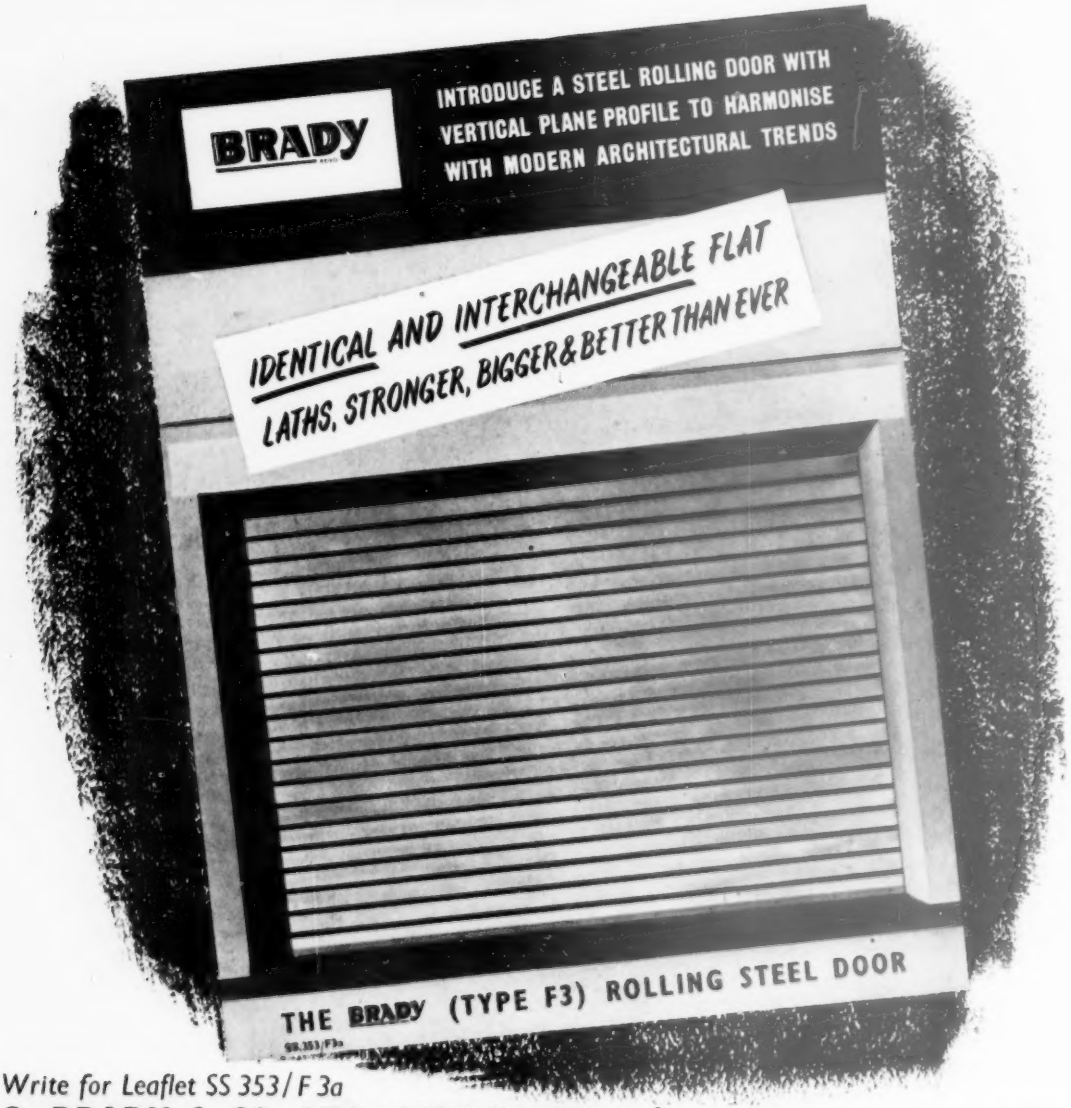
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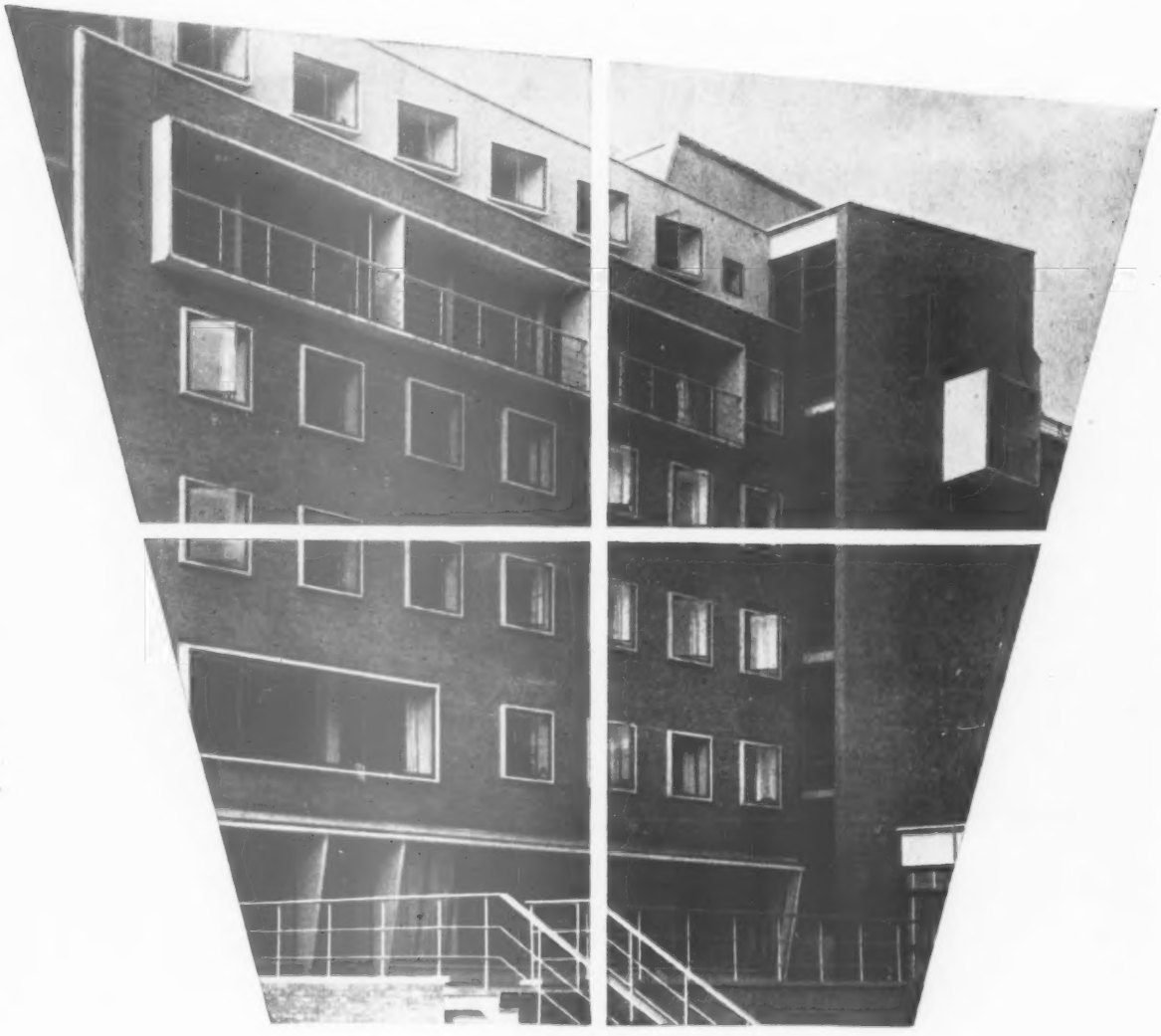

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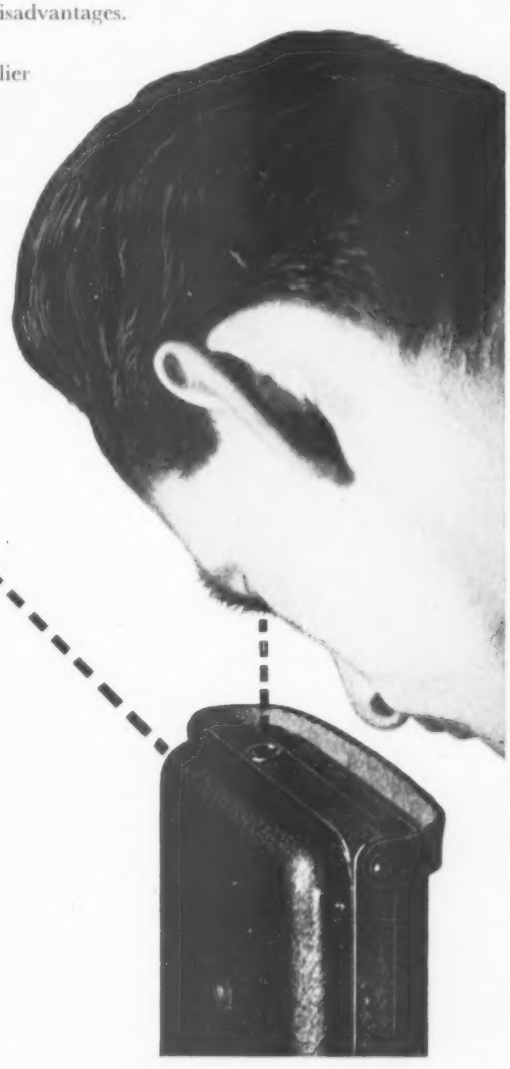

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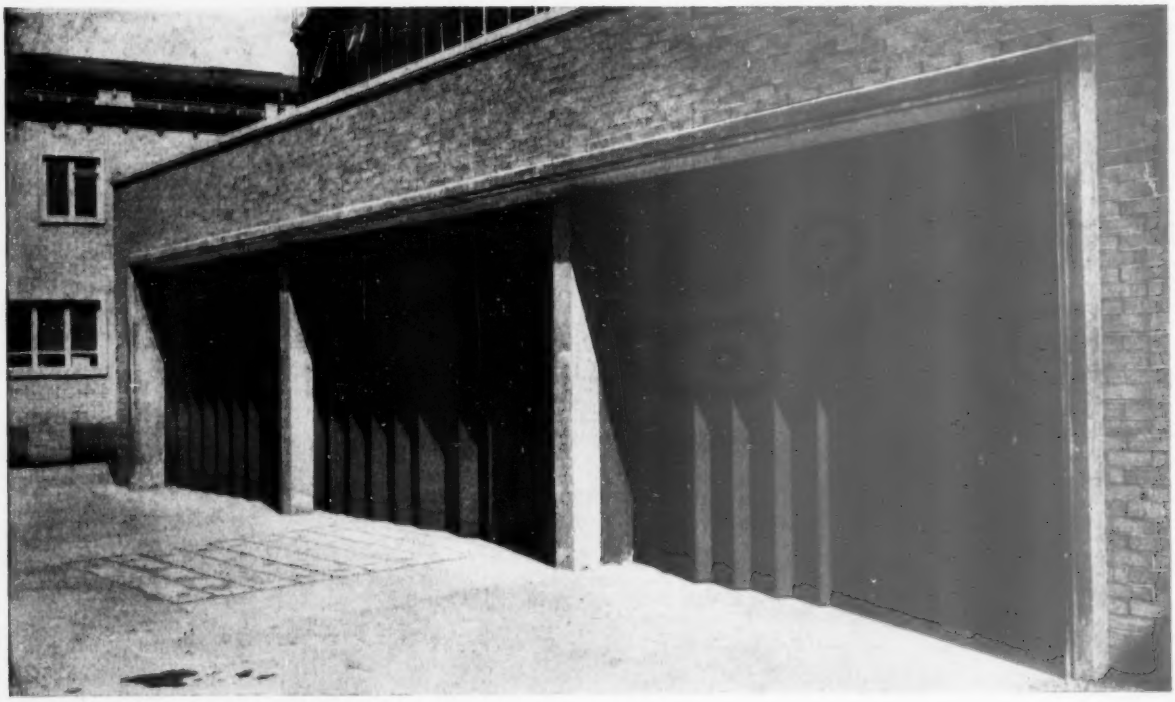

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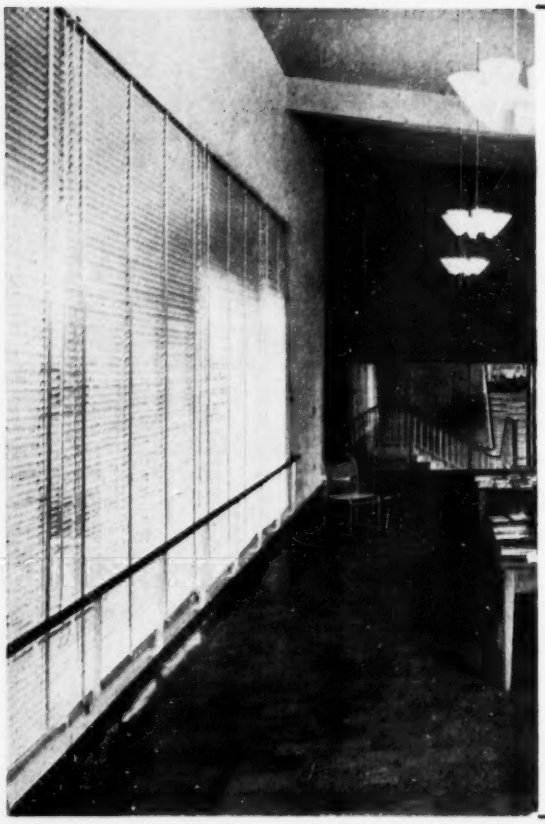
Stretford Girls Grammar School *Architects:* The Lancashire County Council. G. Noel Hill, Esq.



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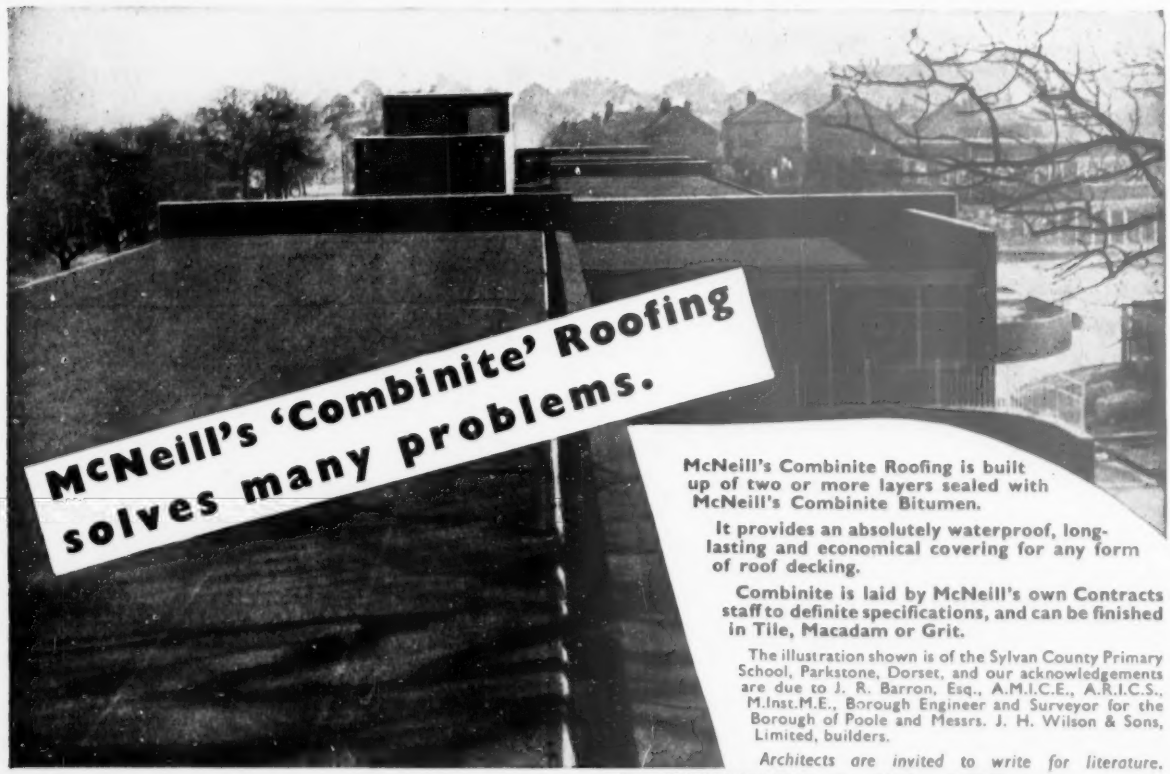

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The illustration shown is of the Sylvan County Primary School, Parkstone, Dorset, and our acknowledgements are due to J. R. Barron, Esq., A.M.I.C.E., A.R.I.C.S., M.Inst.M.E., Borough Engineer and Surveyor for the Borough of Poole and Messrs. J. H. Wilson & Sons, Limited, builders.

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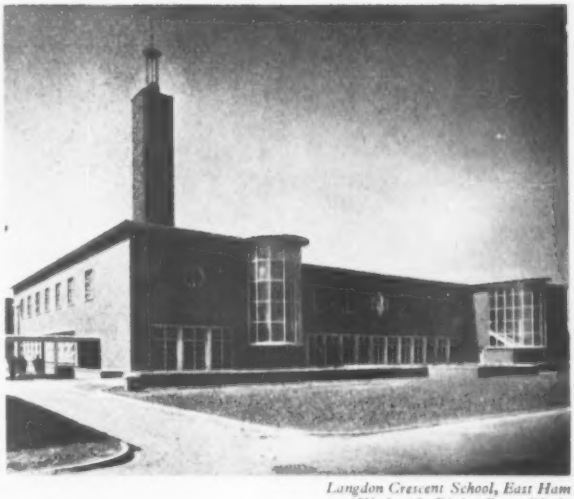

Langdon Crescent School, East Ham
(Kitchen & Dining Room Block)
Architect: J. W. Taylor, F.R.I.B.A.

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B

LANGDON CRESCENT SECONDARY SCHOOLS

EAST HAM, E.6

(Fully illustrated in this issue on pages 794-796)

Architect: J. W. TAYLOR, A.R.I.B.A.

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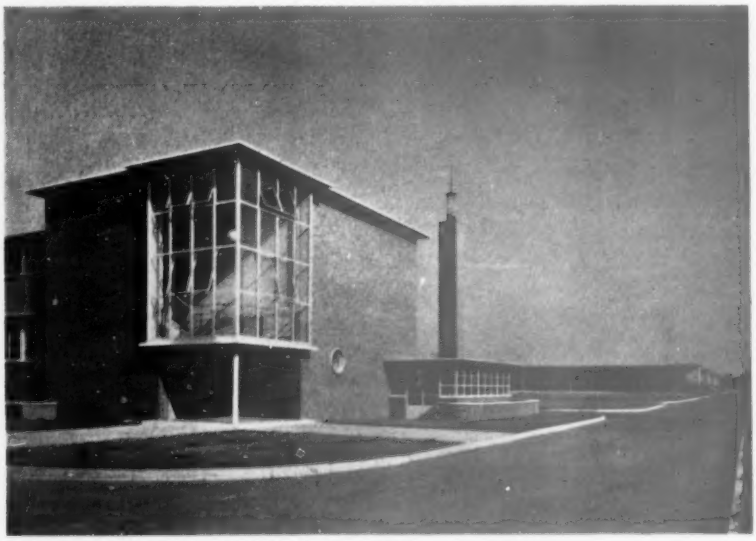

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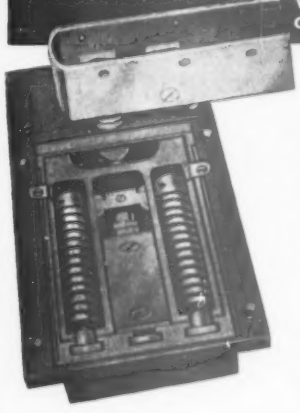

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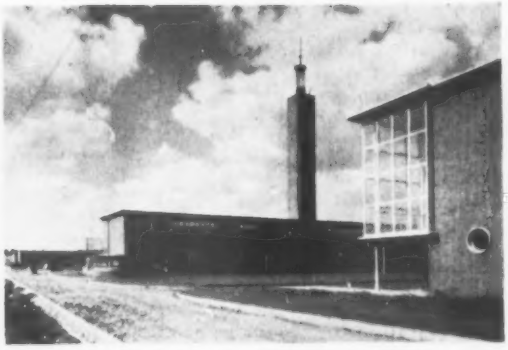

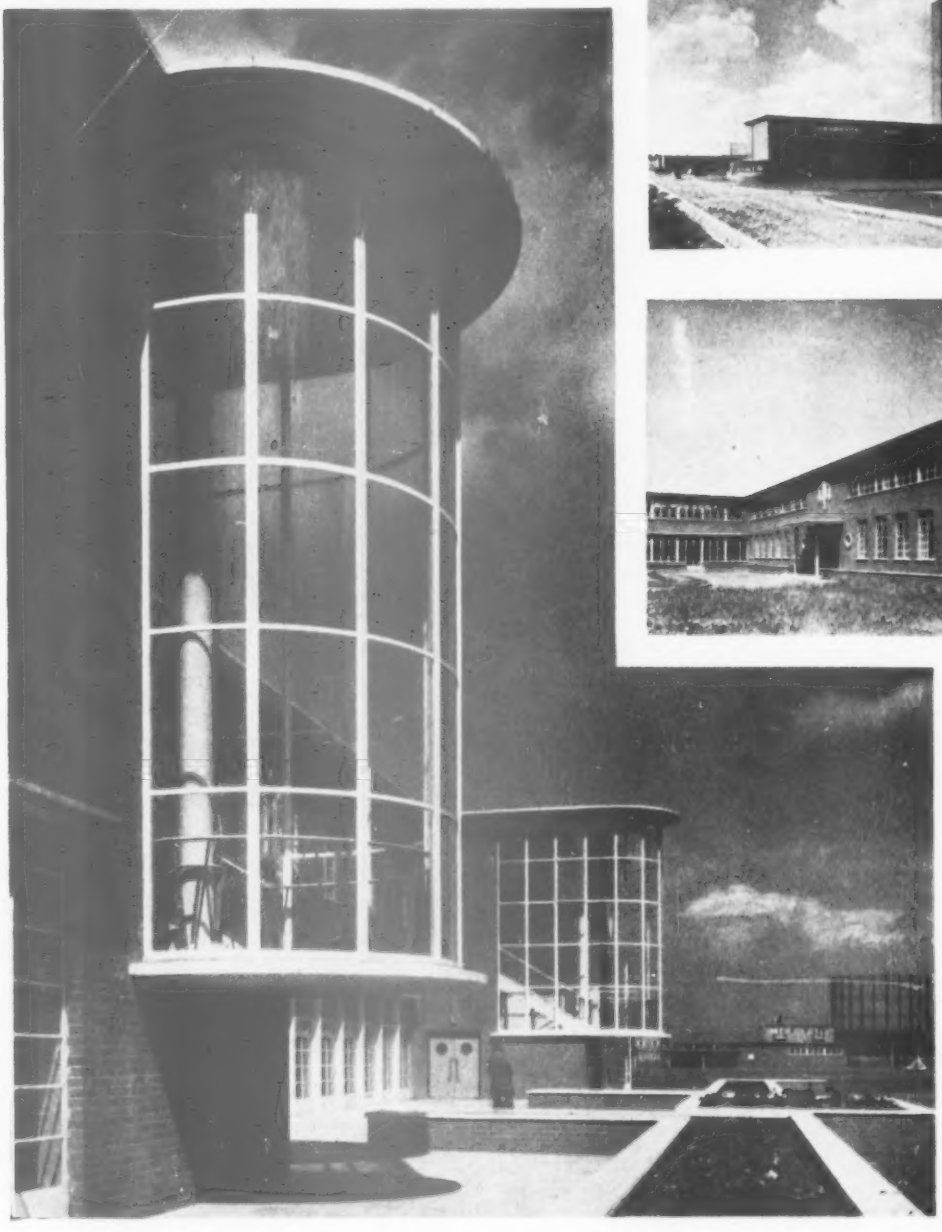

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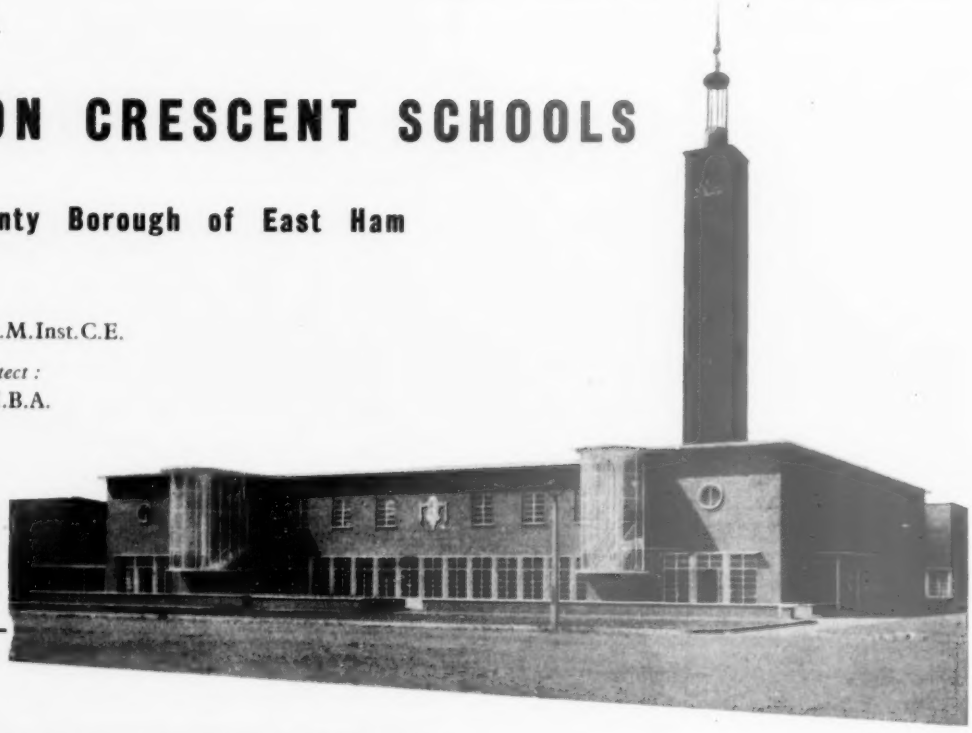
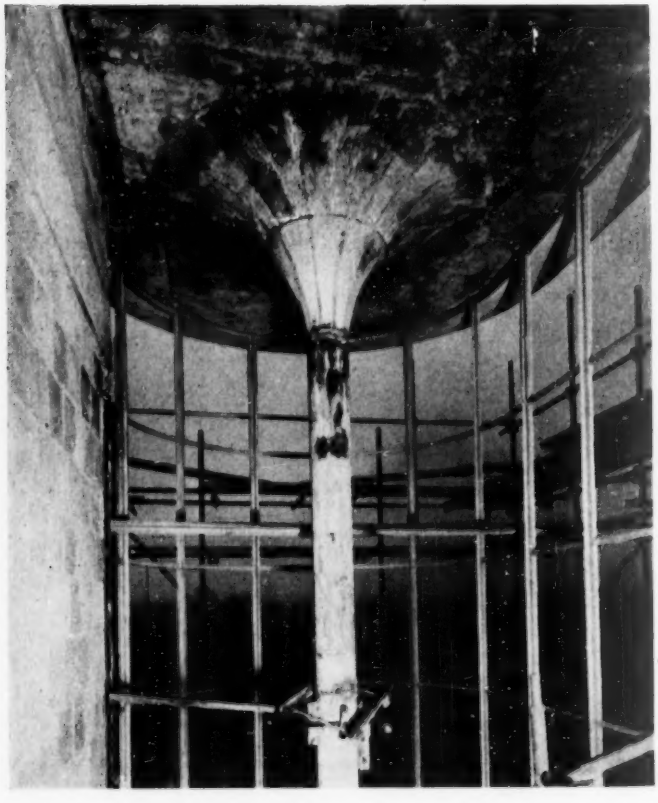


Kitchen and Dining Room Block



Mushroom column to staircase to K.D.R. Block

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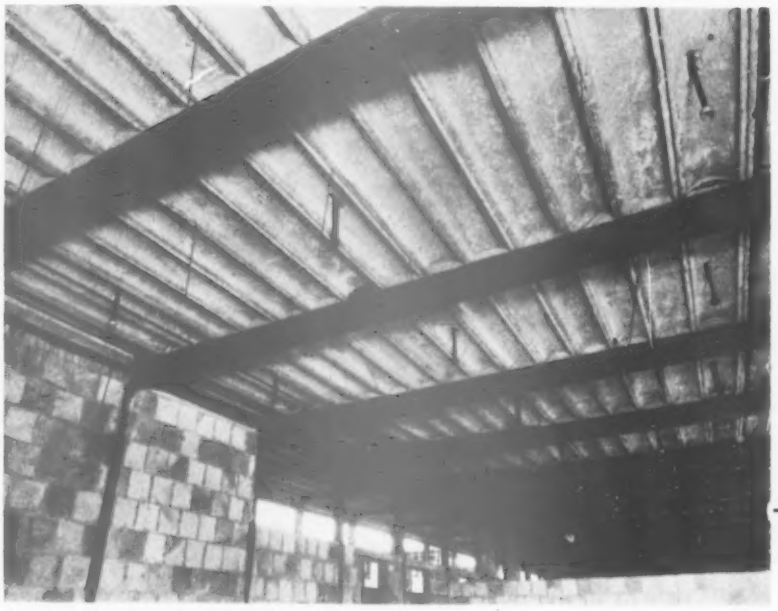

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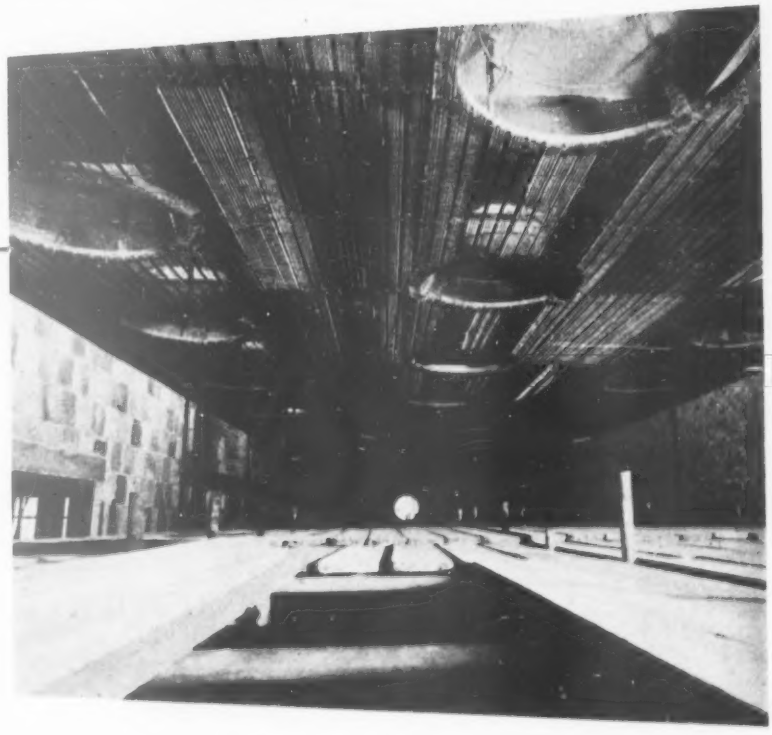

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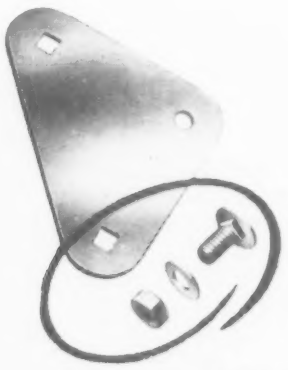

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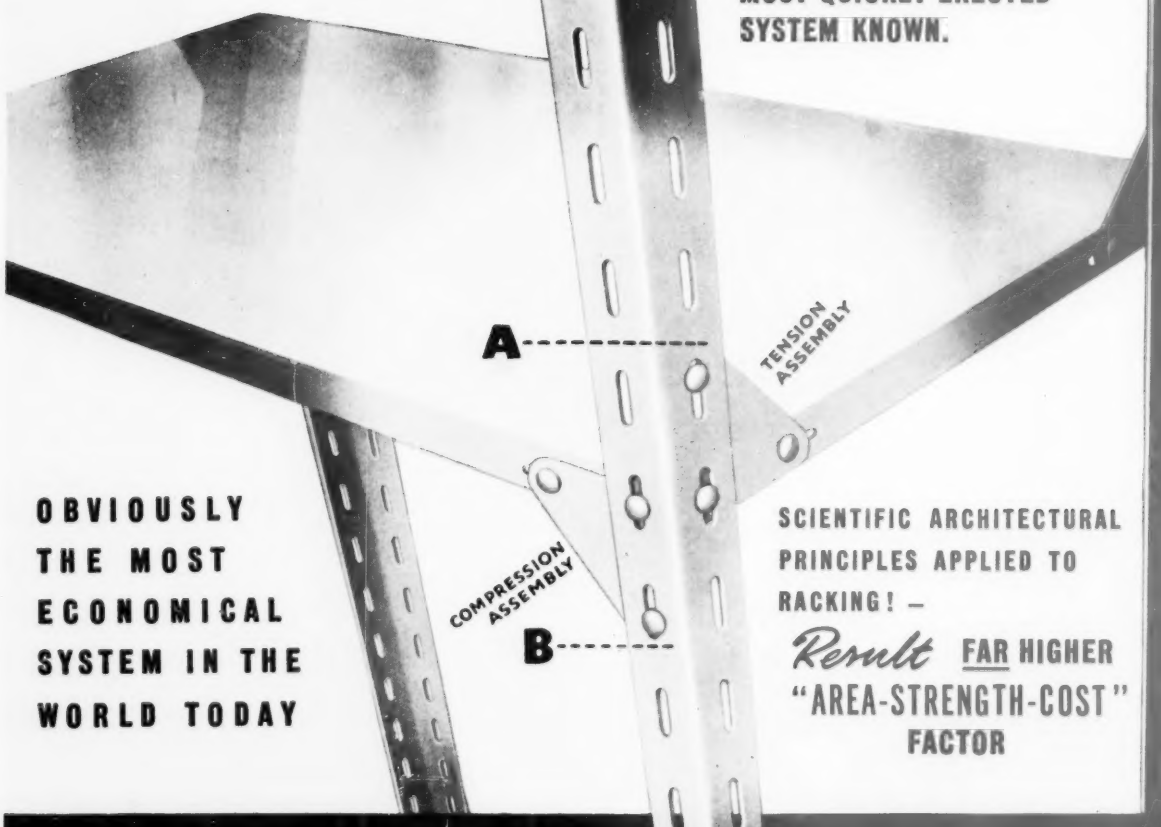

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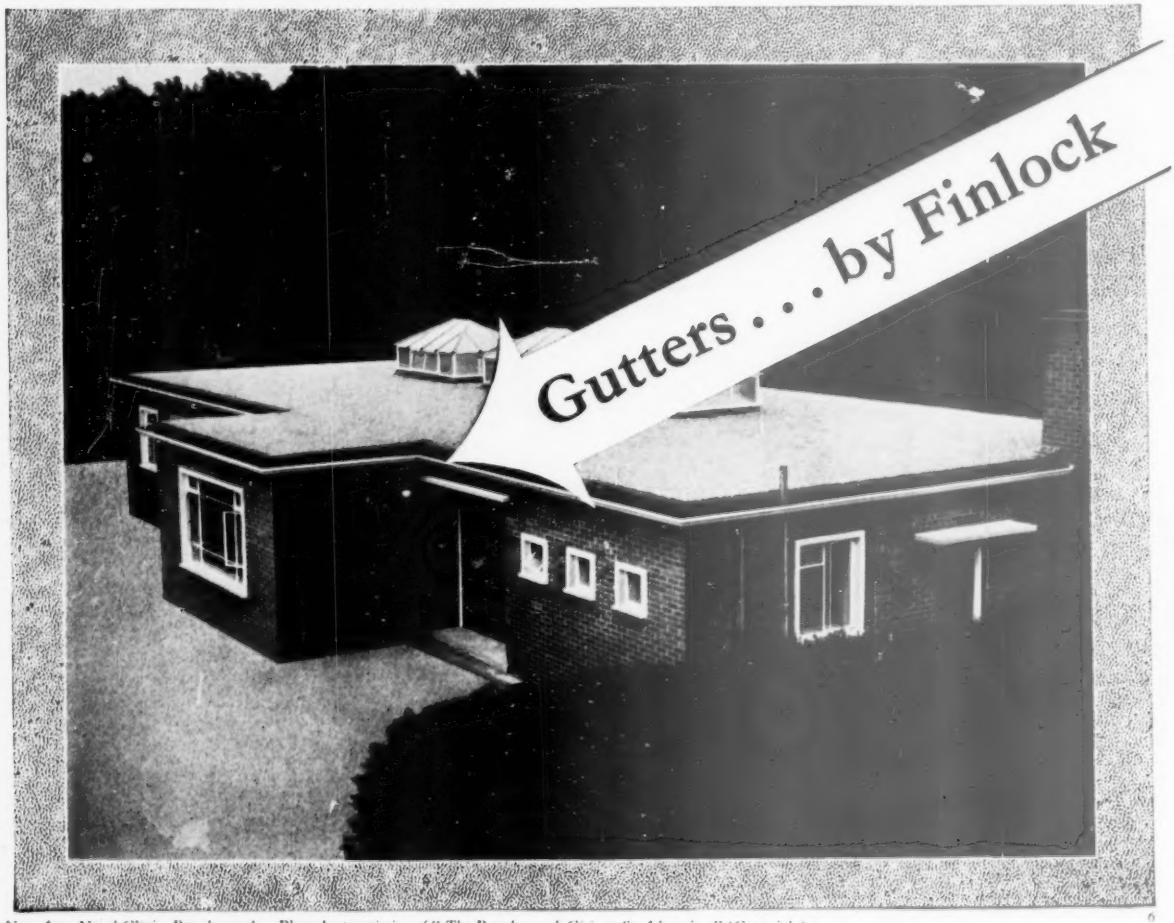

New Ante-Natal Clinic, Peterborough. Photo by permission of "The Peterborough Citizen & Advertiser" (Copyright).
Architects: S. Dodson & Son, L.A.R.I.B.A., Peterborough. Builder: Mr. H. J. Firman, Peterborough.

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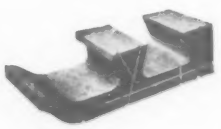

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Vol. 204 No. 27

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31 December 1953

The "Architect and Building News" incorporates the "Architect" founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid: U.S.A. and Canada $9.00

Published by ILIFFE & SONS LTD., DORSET HOUSE, STAMFORD STREET, LONDON, S.E.1
Telephone: WATERLOO 3333 (60 lines). *Telegrams:* "ARCHITONIA, SEDIST, LONDON."

Branch Offices: Coventry: 8-10 Corporation Street; *Birmingham:* King Edward House, New Street; *Manchester:* 260 Deansgate. Tel. Blackfriars 4412 (3 lines), Deansgate 3595 (2 lines); *Glasgow:* 268 Renfield Street.

THE EVENTS OF THE YEAR

HUMAN thought, product of long ages of growth, having decided to packet events into periods of time and to relate the packets to the solar cycle, celebrates the passing of another year and, with indefatigable hope, regards again the opening of a new annual packet of time. The even flow of time, or, as some would have it, the equally distributed field of time, is forgotten; here is a milestone where an end is marked and a new and as yet unknown path is starting.

What have been the outstanding things of this past year in those parts of national activity with which architecture and building are concerned? Individual choice would vary even as the number of things to be reviewed but let us look at some of them.

Much work and time was spent in designing, in erecting and in clearing away the many preparations for the event of the year, the Coronation of the new Queen. Apart from the not too kindly weather the event has been acclaimed by all as a national symbol that produced new links with the Commonwealth and renewed many others with the rest of the world. How long ago it already seems; only the Mall has retained its note of festive decoration for any length of time and now those light and airy arches are to disappear too, to be put to another sort of use that is neither festive nor particularly scientific. If the Kew Palm House must be rebuilt, let it be done as a work of scientific design for its purpose and with as much imagination as went towards the structure that is to pass away. The Mall arches were designed specially for their purpose and fulfilled it well; is scientific Kew not worthy of the same approach and something better than an ingenious sort of make do and mend?

The housing programme was achieved; in actual fact its forward and bulky inertia carried it somewhat past the target area and, with minor shortages of some materials and with other calls for other types of buildings, the new-house programme has been piped down to some extent. It is naturally hoped that private and speculative building in response to the easing of licensing regulations will keep up the overall numbers of new dwellings in the coming year. This remains to be seen; as we have pointed out on several occasions the pinch occurs not at the project level but on the economic plane. It is the availability of capital that matters and ultimately demands a freedom, through Treasury policy, for increased capital expenditure.

The new policy of the Government for the reconstitution of usable dwellings and the encouragement of increased maintenance of property is a welcome one and it may well be that the recognition and adoption of this policy will be regarded in a more distant future as an outstanding item in the events of 1953. Although we have called it a "new policy," it is one that has long been advocated by the wiser of our architect-planners and has been too long delayed. It is a carry-over to the new year which will be watched with great interest for a number of reasons.

Some movement, albeit restricted, has been seen and much talk again devoted to the reconstruction of the City of London. But the past year has seen little actually done or started. The new permanent outline plan for the South Bank area has been published and has received a general acceptance and welcome, which is surely a measure of its soundness. It will be interesting to see with what speed the next steps are taken and comparisons with the City's progress may yet prove interesting.

A number of enquiries and reports instigated in 1953 can also be rated as "carry-over" matters. Perhaps that which will affect most people's lives and tempers is the attempt to deal with traffic problems of the centre of London. In spite even of such recommendations as have been so far made little that is practical has resulted. The enquiry into the activities of the London Builders' Conference and allied

matters is still in the courts of the Monopolies Commission and certain other bodies. The R.I.B.A. report on architectural education is still being ground-out exceeding small ; the R.I.B.A. report on standard paint colour-ranges has still to be published. Modular co-ordination in this country has proceeded a step farther ; judging by certain results and even some reactions abroad any slowness here may be a good thing and produce all the sounder results in the long run. But even so a combined plan of research is now active and in the hands of the B.R.S. and the B.S.I., and the Modular Society has also come into being.

At the beginning of 1953 we envisaged perhaps more industrial development than has actually taken place ; but, looking back, our brief prognostications were not far from what has, in fact, actually happened. For, in some directions, very little has happened and we could repeat much then said without blushes or apologies.

Now for 1954. To all our Readers, a very Prosperous and Peaceful New Year. And so on into the even stream of time that stretches into the future, into its quiet reaches equally with its roaring cascades of troubled waters, all at present unknown and uncharted.

* * *

LORD BURLINGTON

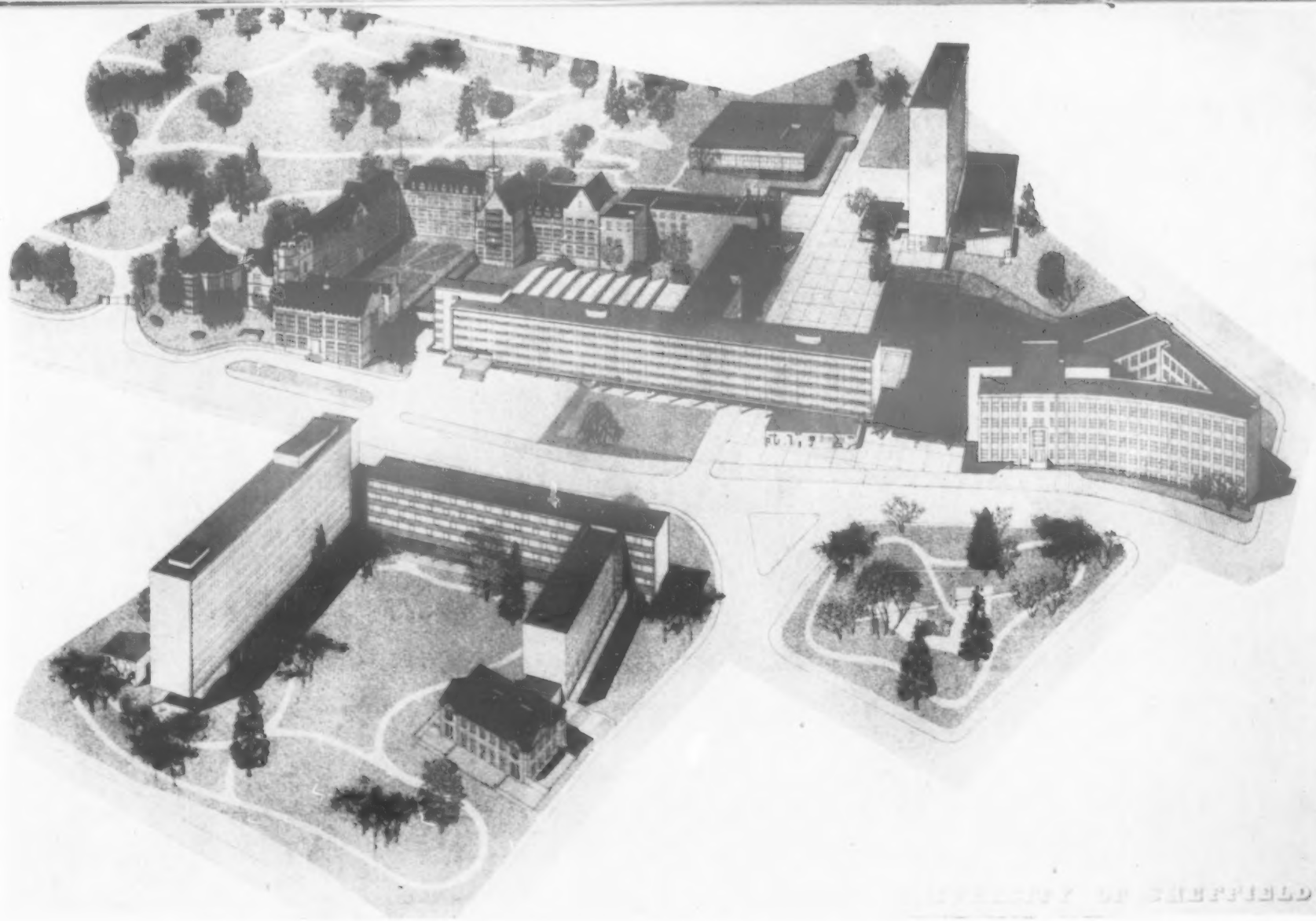
DECEMBER, 1953, sees an architectural bicentenary of some note, for in December of 1753 there occurred the death of Richard Boyle, third Earl of Burlington and a figure of importance both as a patron of architects and as an amateur practitioner of the art. He was not quite sixty, he had succeeded to his title when still a boy, and apart from his famous activities in the field of architecture he had been Lord High Treasurer of Ireland, a Knight of the Garter, and a leading man in county and official circles in Yorkshire. His fame, however, he owes to the work which he did as designer and architectural Mæcenas.

He is of architectural significance for two reasons. Having visited Italy on the Grand Tour he had absorbed, more thoroughly than many others with the same experience, the lessons which early eighteenth-century Italy could teach a keen observer of its buildings. He thus became an amateur architect more original than Aldrich and Burrough, though less so than Archer who had absorbed more than Burlington of Roman Baroque as practised by Borromini. He was also less " professional " than Archer in his approach to his subject ; one must, however, remember that at that time the profession of an architect was far less clearly defined and intensively trained than is the case to-day. Secondly, he was the central figure and chief patron of the " Palladian " group of designers and architectural publicists who became dominant, from the early years of George I till after the middle of the century, in the English architectural scene.

Lord Burlington certainly designed, or " invented " a number of buildings himself, his original sketches being in all probability rendered by his attendant architects and draughtsmen into working drawings. The Earl's model was the Palladianism of the Vicentine school as amplified by examples drawn from ancient Rome which was itself the basic inspiration of the Palladians. He was definitely not a practitioner of Baroque or Rococo. Back in England he was the designer, at least so far as initial sketches or ideas were concerned, of some important buildings like the York Assembly Rooms, his adaptation, at his own Chiswick House, of the Villa Rotonda, and of some ornamental buildings in the Chiswick grounds. There may, of course, have been collaboration and discussion between him and his designers even at the " rough sketch " stage of such buildings, but even so one may fairly attribute them to the Earl, and he has a definite position as an architect in his own right. He also supplied house designs for some of his neighbours among the Yorkshire nobility and gentry. In other cases he would give advice which his friends would accept and pass to their architects for execution.

More important for the whole corpus of English architecture is the Earl's work as a patron and as the financier of books which had a deep influence on English building style in the whole of the eighteenth century. While Germany and Southern Europe luxuriated in the fancies of wildly dramatic curves, England in the main stayed soberly, a little dully Palladian. For Burlington, by his patronage and by the publications for which he supplied part of the funds, did much to diffuse and establish in England a taste which in any case accorded with the "academic" movement in taste then prevalent in Rome itself and in some other sectors of the Continent. It is easy to regret that England was steered away so decisively from the more fanciful expressions of contemporary European taste, and I for one wish that we had more Baroque and Rococo to show. Yet Palladianism and academic classicism were more congenial to the English temperament, and one may be glad that an inclination to architectural sobriety and balance was so taken in hand by the leaders of early Georgian taste that an astonishingly good average of excellence was achieved and foundations laid on which the achievements of the Adam and " Regency " periods could be based. A patron who did so much for such men as Campbell, Leoni, Kent, Flitcroft, and Ware is inevitably a figure of merit and importance, the more so when one recalls his own work as the maker of original and ingenious studies in the " antique " of or " Palladian " manner.

BRYAN LITTLE



PERSPECTIVE OF THE WINNING DESIGN IN THE RECENT COMPETITION FOR NEW UNIVERSITY BUILDINGS, SHEFFIELD. VIEW IS FROM THE SOUTH-EAST. ARCHITECTS: GOLLINS, MELVIN, WARD & PARTNERS.

NEWS OF THE WEEK

R.I.B.A. Prizes and Studentships

On the invitation of the President of the R.I.B.A., Mr. Raymond Erith, F.R.I.B.A., has undertaken to give the criticism of the drawings submitted in competition for the R.I.B.A. Prizes and Studentships, 1954-1955.

Mr. Erith's criticism will be delivered at a general meeting of the Institute to be held in February, 1955.

A.A. Evening Classes in Design

The following members of the Architectural Association have kindly offered to act as honorary tutors or lecturers: Sir Hugh Casson; Mr. P. Shepheard; Mr. B. Westwood; Mr. D. Clarke Hall; Mr. N. Conder; Mr. J. Brandon Jones; Mr. H. Cadbury-Brown; Mr. R. Jordan; Mr. F. Atkinson; Mr. G. Shankland.

As the scheme is being started on a tutorial basis, it has been necessary to limit numbers for the first term to about forty students, and therefore it is unlikely that the A.A. will be able to accept any further applications for the Easter term after January 1. There will be a further announcement about the course in March.

N.F.B.T.E. President's Christmas Message

The President of the National Federation of Building Trades Employers, Mr. Wilfred Horsfall, of Liversedge, Yorks, in a message of Christmas Greetings to the Presidents of the Regional Federations affiliated to the National organization, said:

I think we may rightly claim that 1953 has been a year of fulfilment for the building industry. During the past twelve months events have taken the course which we as a Federation have always assured the Government they would take if wider opportunities to buy and build in free markets could be restored to the industry. At the same time we have more than fulfilled the hopes of the Government and, indeed, of the nation in relation to housing; we have more than maintained, as we always said we could, the schools and factory building programmes at the determined levels; there has been no chaos and no price inflation following substantial increases in the licence-free building limits; and, what is more, we have not made unduly heavy demands on the labour market in accomplishing a remarkable expansion in building work.

All these things have been achieved despite the heavy calls made on the industry's resources following the disastrous floods in the early part of the year. This catastrophe resulted in large numbers of men and considerable quantities of materials, plant and equipment being diverted from normal building work, but I am glad to report that we have taken the essential and difficult task of repair and reclamation in our stride without loss of output in other spheres.

Housing

In no field of building work during 1953 has progress been more spectacular than in housebuilding. We may confidently expect to complete over 300,000 houses in the year and the wisdom of allowing private enterprise builders more scope to exercise their initiative is apparent in the monthly housing figures, where the number of completions in this category has steadily risen. We have responded well to the Minister's challenge of "the more you build, the more you will get to build," but the charges on public funds made by the Local Authorities' programmes are still heavier than the country can afford. This means we must do all we can to implement the Government's declared policy for a wider measure of home-ownership. The recent relaxations in the house licensing system have been welcomed by us all as a most helpful move and you may be sure that your representatives at the National Federation and its affiliated organization—the Federation of Registered House-Builders—will continue to be on the alert to iron out any difficulties or problems that may hinder or prevent firms—large and small—from getting the houses up.

Mr. Macmillan's decision to level off the programme at 300,000 houses a year —coupled with his slum clearance proposals—makes an increase in private enterprise housebuilding imperative. We are confident we can do the job provided we have the co-operation of the local authorities and the building societies. I am not yet satisfied that all local authorities are doing their utmost to encourage home-ownership by making land readily available to private builders and by dealing quickly with town planning applications; and I hope that as a result of their discussions with Mr. Macmillan, building societies will assist through a more liberal outlook in regard to the capital sums required from house purchasers.

Materials

I have already publicly expressed our appreciation of the efforts made by materials manufacturers in achieving record levels of output during 1953. These results are welcome, but the industry is not left with any surplus stocks of materials. In fact, there have been, and still are, critical shortages—particularly of bricks—in different parts of the country, so we must continue to look to them for even higher output in 1954. If we can get the materials pipeline so full that there is never any question of jobs being held up through lack of materials we shall have gone a long way towards reducing that part of the total cost of building for which building trades employers are directly responsible.

Whilst on this question of costs I would like to express the relief and gratification we all felt at the removal by the Minister of Materials of consumer licensing for timber. This has been one of the principal stumbling blocks to efficient and economical building since the war. With the freedom we now have to buy in the open market I am hoping that before long there will be a welcome reduction in the price and an improvement in the quality of this commodity.

Education and Training

Progress in the recruitment of apprentices continues, but not at so fast a rate as some of us would wish. During the year there have been two B.B.C. broadcasts aimed at encouraging more boys of the right type to come forward and be trained for the craft force of the future, and I am hopeful that Local Associations will make the most of this valuable support by renewing their efforts to get youths properly registered and placed with suitable firms.

Our education and training work has moved forward in another direction during the year, and the recently published second report of the Standing Committee for the Training of General Foremen shows the progress that is being made to improve the status and qualifications of the industry's "non-commissioned officers." May I, through you, appeal to all your members to do their utmost to encourage foremen's organizations in their areas. I know you will agree that it is of first importance that the industry has able and competent men in its supervisory grades, and it is in our interests as employers as well as in the interests of our foremen to do everything we can to further this vital work.

Building Costs

This, of course, is the one big problem to which we must give our attention during the coming months. Happily the increase in productivity on the sites which began last year has continued throughout 1953, and I think we should acknowledge that. On the other hand, we now have to find the money for the extra week's holiday with pay and the virtual certainty of a 1d an hour wage increase under the sliding scale in February next. This latter means that the industry and those who pay the industry for its services will have to find another £10 million a year for wages alone. In addition, although there have been some indications of very modest reductions in the prices of some materials, this item still accounts for some 60 per cent of the cost of building operations, while transport and freight charges are higher than ever. There seems little chance of

there being much outside help for builders to cut their prices, already at a dangerously high level, during 1954.

This is the background against which we must view the operatives' application for a 9d an hour increase. If it were granted, this increase would add £90 million to the industry's annual wage bill and £90 to the price of an average-sized three-bedroomed house. Nor would the effects be confined to those contemplating home-ownership. Another 9d an hour would put an additional 1s 6d a week on council-house rents and would be bound also to influence those thinking of putting repair work in hand. The operatives' application will come before the National Joint Council at its meeting in January, when all aspects of the current situation will be taken fully into account. I will only add, therefore, that, contrary to the popular but quite erroneous belief that exists in the minds of certain sections of the operatives, there is no secret hoard from which the cost of this wage claim could be met without calling upon the client to pay more. The simple and plain truth is that our clients are already paying more than they can afford for our work. To ask them to pay still more would inevitably mean disaster for large numbers of those, employers as well as operatives, who earn their living in the building industry.

The Tasks for 1954

Taking all the foregoing aspects of our industry into account, our course during 1954 is, I suggest, clear. In simple terms, we must build faster and cheaper, without lowering the quality of our work. The National Federation will continue to press for more and still more materials, but in the meantime we must conserve and use intelligently every scrap of material we do get, and eliminate all forms of waste—both in respect of materials and of labour.

Visitors' waiting space in the new Out-Patients' Department of St. James' Hospital, Balham, which was opened recently. Architects : Devereux & Davies. An article on this building will appear in a future issue.

Housing Repairs and Rents Bill

The Law and Parliamentary Committee of the Incorporated Association of Architects and Surveyors has given careful consideration to the Housing Repairs and Rents Bill, and is of opinion that the many inequalities that will necessarily remain when the Bill is enacted will be far outweighed by the substantial advantages to both landlords and tenants in the much-needed improvements to property that will result.

The Committee is nevertheless concerned at the burden of additional work that will be placed upon the staffs of local authorities, and particularly at the possibility of delays in the inspection of premises and in the subsequent issue and revocation of certificates of disrepair. The I.A.A.S. Committee is therefore seeking to have the suggestion put forward at the Committee stage of the Bill that local authorities should appoint panels of private surveyors to assist in the inspection of properties at appropriate fees.

ANNOUNCEMENT

The practice of Richard Henniker, M.A., F.R.I.B.A., hitherto conducted from 14, Berkeley Mews, Seymour Street, W.1, is being amalgamated with that of L. A. Culliford & Partners.

With effect from January 1, 1954, Mr. Henniker joins L. A. Culliford, F.R.I.B.A., F.R.I.C.S., M.T.P.I., and L. A. Chackett, F.R.I.B.A., F.R.I.C.S., as a partner.

The combined practice will be carried on under the present name and address of L. A. Culliford & Partners, 47, Essex Street, Strand, W.C.2 (Tel. Central 9061 and 1316).

COMING EVENTS

Royal Institute of British Architects

January 6 at 6 p.m. Award of Prizes and Studentships. "Honour Your Forebears," John Betjeman, at 66, Portland Place, W.1.

The R.I.B.A. Travelling Exhibition "Home and Surroundings" will be on view at the Stuart Hall, Norwich, from January 1 to 6, 1954, under the auspices of The Norfolk & Norwich Association of Architects. Concurrently, the Association is holding an Exhibition of Photographs of work carried out by its members since the war. These Exhibitions are to be opened at 5.30 p.m. on Friday, January 1, by the Lord Mayor of Norwich. Mr. Rowland Pierce, F.R.I.B.A., has kindly promised to give a talk to the Association about its Exhibition at 5.30 p.m., on Wednesday, January 6.

The R.I.B.A. Intermediate Design Prize and Victory Scholarship Competitions, 1954-55

The R.I.B.A. Board of Architectural Education calls the attention of intending competitors to the fact that the closing date for the submission of forms of application for the R.I.B.A. Intermediate Design Prize is February 24, 1954.

The R.I.B.A. Intermediate Design Prize, a certificate and the sum of £100, for the study of contemporary architecture in Europe, is confined to Probationers and elected Students of the R.I.B.A. and elected Students of Dominion Allied Societies who have passed the R.I.B.A. Intermediate or equivalent examination, or produce certificates from members of the R.I.B.A. to the effect that they have reached the required standard. Students who have passed the R.I.B.A. Final or equivalent examination or who will have passed the R.I.B.A. Final or equivalent examination at the time of the en loge competition are not eligible to compete.

Under the arrangements for the competition only one en loge competition will be held. This will take place in London and at non-Metropolitan centres on Wednesday, March 31, 1954.

The Victory Scholarship, a Silver Medal and the sum of £120. In the year 1954-55 the sum of 100 dollars has been added to the value of the Scholarship by the generosity of Mrs. Margaret Chadwell, of the United States of America. The competition is confined to members of the R.I.B.A. and of the Allied Societies Overseas and elected students of the R.I.B.A. and of the Allied Societies Overseas, who have passed the R.I.B.A. Final or equivalent examination or who have produced certificates from members of the R.I.B.A. to the effect that they have reached the required standard. With regard to the R.I.B.A. Final or equivalent examination, students need not have passed the Professional Practice Examination to be taken after 12 months' practical experience.

The en loge competition for the Victory Scholarship will be held on the same day as that for the R.I.B.A. Intermediate Design Prize, i.e., Wednesday, March 31. The closing date for the submission of forms of application is February 26, 1954.

Forms of application for admission to the competitions may be obtained at the R.I.B.A., 66, Portland Place, London, W.1.

Wider Scope for the Housing Medal Competition

Changes in the character of the Ministry of Housing and Local Government Housing Medals Competition are forecast in a circular to local authorities which sets out the conditions for the 1954 competition.

The circular, which encloses a memorandum giving details of the competition, points out that there will be two innovations in 1954. Instead of limiting it to one year the field of entry has been extended to cover post-war housing schemes completed at any time up to December 31, 1953 (provided they have not been submitted in previous competitions), and, for the first time, a diploma will be awarded to the builder responsible for the building work in each winning scheme, in addition to the usual awards to architects and local authorities.

In his circular the Minister says that in judging entries in the 1954 competition particular attention will be paid to schemes presenting attractive solutions to the special problems of design linked with the use of "People's Houses" or new tradition houses.

"The intention," the circular states, "is that the awards shall go to schemes of architectural merit in which compact planning and economical and efficient construction, whether traditional or new tradition, are allied with high standards in elevation, layout, grouping and landscape treatment, with due regard to the economical use of land and services. The importance of these considerations has again been emphasized in 'Houses, 1953.'"

As in previous years the competition is being held in collaboration with the Royal Institute of British Architects. In each region outside London there will be an award for one urban scheme and one rural scheme. In the London region there will be an award for a scheme designed to accommodate 100 persons or over per net residential acre, and another at less than that figure. Local authorities, housing associations and new town development corporations will be eligible for these awards.

The awards committees, consisting of architects, nominees of local authority associations and a builder nominated by the Federation of Registered Housebuilders for each committee, will be constituted as in previous years.

The closing date for entries is February 27, 1954.

Awards for Improvement Schemes and Private Enterprise Houses

In 1955 it is proposed to hold separate competitions simultaneously for (a) schemes of conversion or improvement carried out by local authorities and other public and private owners, and (b) schemes of new housebuilding by private enterprise. Schemes eligible for these new competitions will be those completed by the end of next year. It is hoped that the greater encouragement given to improvement work by the Government's Housing Bill and to private enterprise building by the freer issue of licences will produce some interesting schemes.

No decision has been taken for future competitions, but it is likely that a competition for new local authority housing schemes will be held in 1956 and may thereafter alternate with competitions featuring other selected aspects of housing.

CORRESPONDENCE

Trembley Park School, Geneva

To the Editor, A. & B.N.

Sir,—What a very delightful school this looks from the illustrations and description by Mr. Norman Westwood in ARCHITECT & BUILDING NEWS of 17.12.53; it seems ideally planned and the architect must, I think, get full marks!

I like the natural stone (or granite) "monumental" staircase, with its properly bonded and also "battered" walling, retaining the ground at the higher level: it has a very neat coping stone of the same material (and not "art-stone"—*our* universely used post-war "modern" austerity material). The window openings are of "normal" shape and size and not of the "contemporary" style of "hot-house" architecture, 1851 vintage.

The wall surfaces are all of one material, not umpteen different materials of differing colour and texture, and it has (. . . ssh . . .!) a delightful pitched roof, pan-tiled, as of yore, and not just mono-pitched—or more "effective" still—a large and bleak looking asphalt "flat"!

As regards the interior features illustrated, these appear to be just perfect—especially the beautiful looking symmetrically placed curved staircases, these are a welcome relief from our cantilevered slab-treads, with open risers displaying in an abstract form wonderful capabilities of this "*new* material" (*here*, only)—reinforced concrete.

As regards the superb landscaping and the admirable large tree preservation method and attractively designed perforated gratings, etc., including the fine natural stone staircase—again—I have now run out of suitable words of praise—with a deep regret that on a recent forced landing at Geneva Airport, that we were not delayed longer and free to have visited some of the modern attractive buildings, such as this fine school so sympathetically and —hush—note symmetrically planned, in this age of the *un*-symmetrical plan on all occasions possible. What is "good for the goose, is good for the gander," in a "mixed" school as in this case.

Incidentally, Geneva's new modern airport buildings are not to be despised—they are, I think, better than those of London, Milan or Rome, for that matter. A. NEVILLE HOLT.

Storage Space

Sir,—I am afraid I owe Mr. Edwin Gunn an apology for writing in so flippant a vein about an architect of such eminence and venerable age.

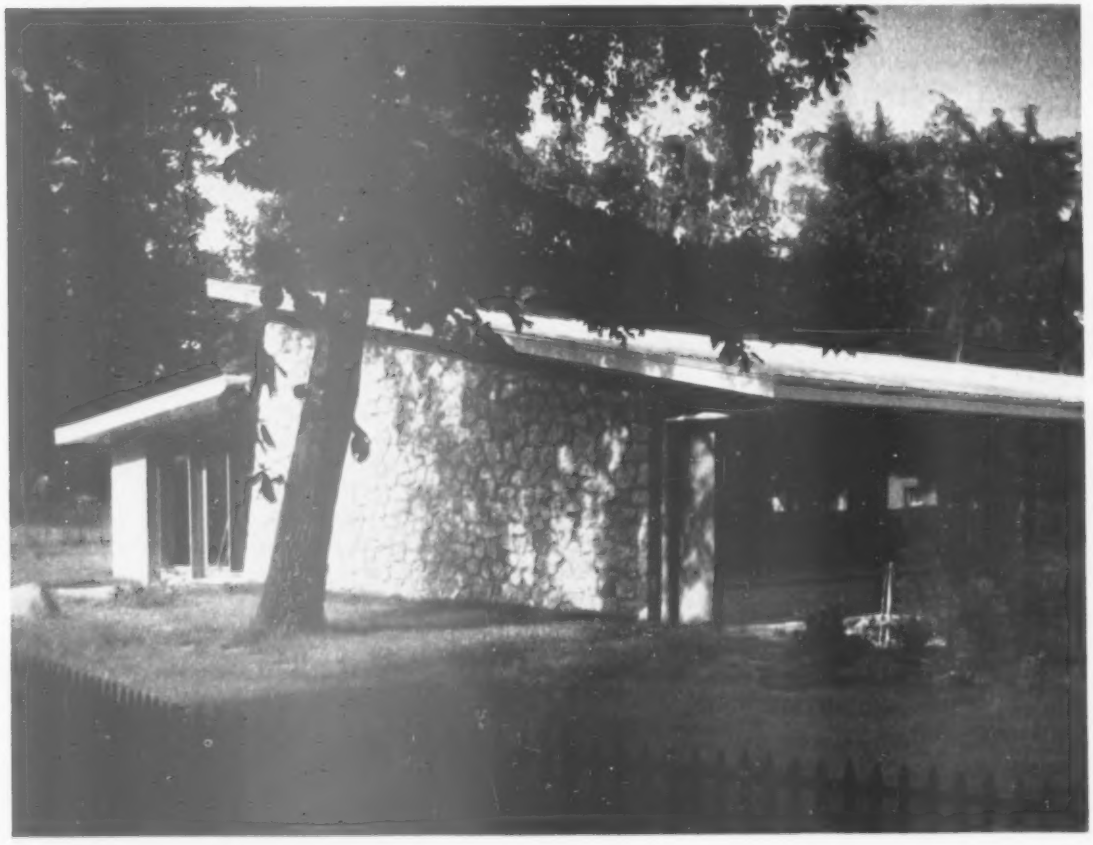
I must thank him for taking my letter in such good part, and I am glad it made him laugh. I am relieved that he does, in his houses, allow the housewife ample storage space, more readily accessible than a loft.

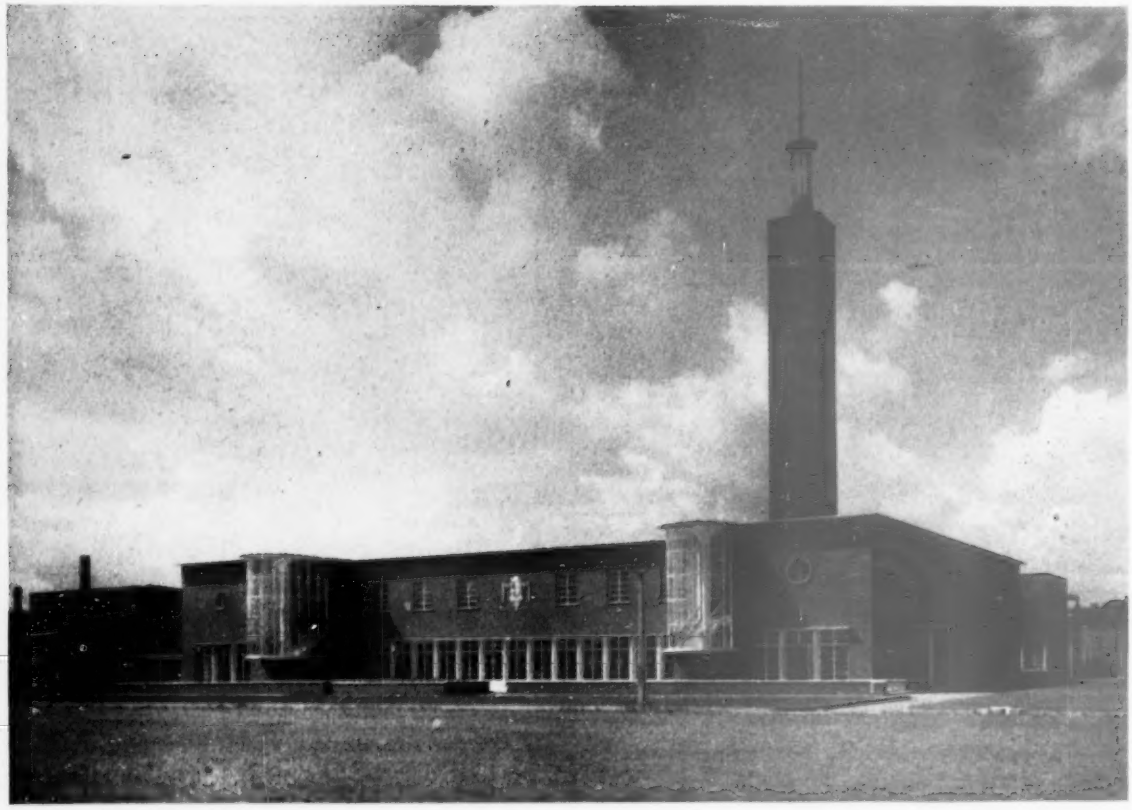
I am, etc.,

KATHARINE L. SMITH.

L'École Geisendorf, in Geneva. Architects : Brera and Waltenspuhl. This infants' school is built in an existing park. Last summer the first classroom block and entrance hall were being used and a further block of classrooms was under construction. Views of the classroom block show the use of single pitch roofs falling in opposite directions to give clerestory lighting over the "cloakroom corridor." The heating is by panels in floors and ceilings ; the boiler is oil-fired. The roof is covered with aluminium on 2in thick cork slabs. Windows to classrooms are sliding and made of varnished hardwood. Cills are pressed metal.

The external colouring is particularly pleasant. Random rubble wall—soft warm grey ; brickwork panels—dull red ; windows and doors—rich warm brown ; uprights between windows painted blue ; fascia board—white. The small playground was finished with a brick red tarmac, existing trees being left and irregular areas under them paved with crazy paving with grass between their joints. Photos: NORMAN WESTWOOD





General view of the kitchen-dining-room block from the North

Langdon Crescent Secondary Schools, East Ham

F. C. BALL, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor
J. W. TAYLOR, A.R.I.B.A., Chief Assistant Architect
A. E. RICHARDSON, A.R.I.B.A., Senior Assistant

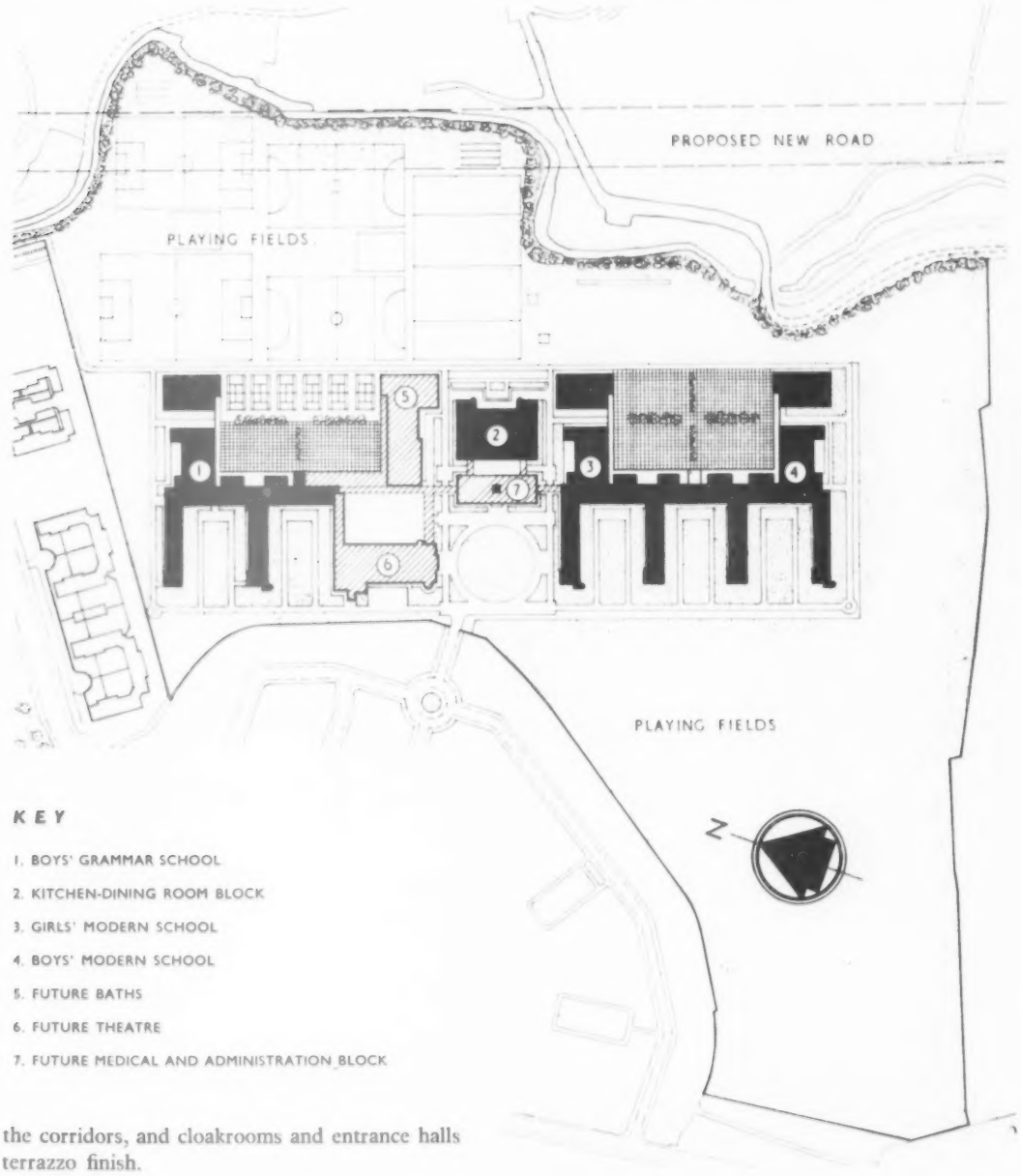
THIS group of school buildings was designed in 1946 under the Building Regulations of the 1944 Education Act. The project represents the first step in the East Ham Educational Development Plan. The group comprises three schools, a boys' grammar school, a boys' secondary modern school, and a girls' secondary modern school. Each school can accommodate six hundred pupils and has been designed as a separate entity sharing certain communal facilities, kitchen and dining halls, library and exhibition hall. At a future date will be added a swimming bath and a theatre. There are approximately thirty acres of playing fields.

The site, which has an area of 42 acres, is situated on the eastern boundary of the Borough and was originally marshland. The decision to build on this site also necessitated diversion of the town sewer and main surface water outfalls of the Borough. Another characteristic of the site was the high sulphur content of the soil; sulphur-resistant alumina cement was used for all sub-surface concrete, which includes some 1,475 piles.

The buildings are designed on a 7ft 6in planning grid, which was selected to suit a prefabricated light steel framework. Piles were driven at 15ft centres to an average depth of 16ft. Externally, walls are faced with lavender grey facing bricks with reconstructed stone dressings. Internally, classrooms have painted plaster walls with pin-up boards to dado height; corridors have cold-glaze finish to dado height with painted plaster above.

The assembly hall walls are panelled with cork to a height of 6ft 6in, and above this level has painted plaster. The balcony front, rear and side walls are surfaced with acoustic tiles.

Precast concrete units were used for first-floor construction, floors in classrooms and assembly halls were finished with hardwood blocks. Thermoplastic tiles were

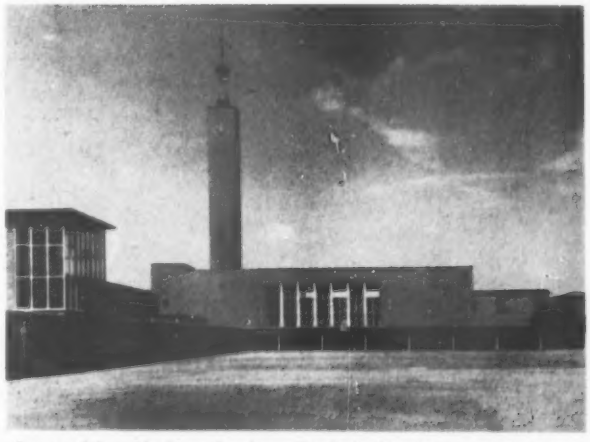


used in the corridors, and cloakrooms and entrance halls have a terrazzo finish.

Suspended plaster ceilings were hung beneath the precast first floor, the cavity being used for service runs, including wastes from first-floor laboratories.

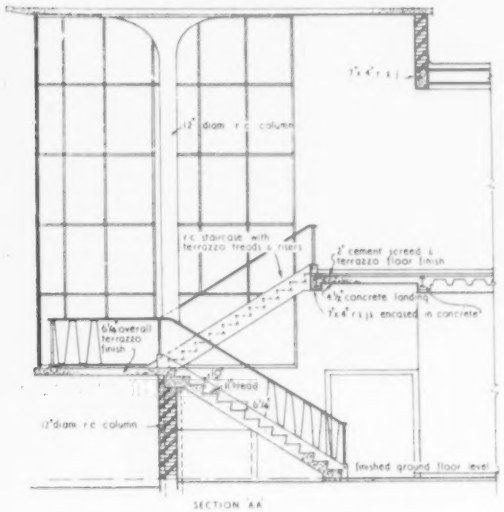
The assembly hall ceilings are coffered, concealing indirect lighting and radiant heating panels. The roof is Briggs' aluminium trough decking with insulation board and built-up felt, with granite chippings as a finish.

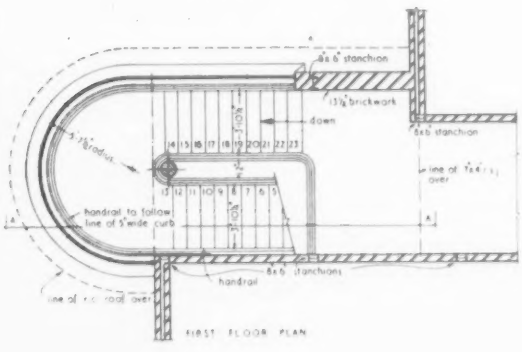
Beneath the administration unit is situated the central boiler house, the clock tower above contains water storage tanks and flues. A main heating duct, a quarter of a mile long and containing a walk-way, links the three schools to the boiler house. Subsidiary ducts branch off the main walk-way to provide services for the various classroom blocks, gymnasia and halls. The boilers are fired with pitch-creosote. Heating is by convector panels; special provision has been made for drying clothes.



Assembly Hall of the Girls' Modern School

LANGDON CRESCENT SCHOOLS


12" diam r.c. column
r.c. staircase with terrazzo treads & risers
2" cement screed & terrazzo floor finish
4½" concrete landing
6⅛" overall terrazzo finish
finished ground floor level
SECTION AA

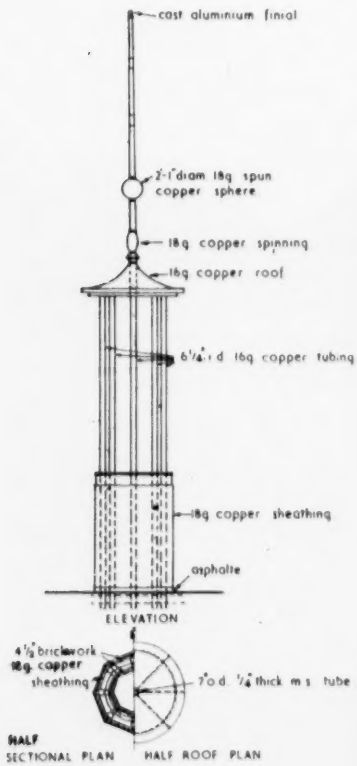


GENERAL CONTRACTOR: W. & C. French Ltd

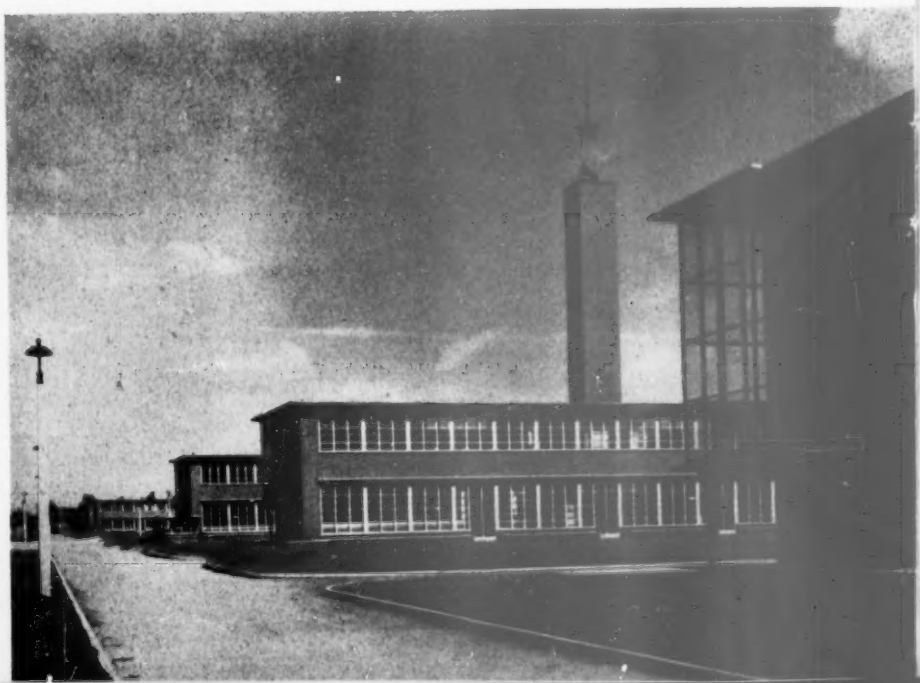
Artificial Stonework: The Empire Stone Co., Ltd. *Assembly Hall Acoustic Correction*: Newalls Insulation Co., Ltd. *Balustrading*: C. E. Welstead, Ltd. *Bricks—Facing*: Proctor & Lavender, Ltd. *Boiler Flue*: Associated Settings & Chimneys, Ltd. *Broadcast Equipment*: Sound Diffusion. *Clock to Tower*: Gillett & Johnston, Ltd. *Cloakroom Equipment*: Comyn Ching & Co. (London), Ltd. *Cork Wall Linings*: E. J. Elgood, Ltd. *Cycle Racks*: A. Odoni & Co., Ltd. *Doors*: Flush Woodwork, Ltd.; Linden Doors, Ltd. *Electrical Installation*: Rashleigh Phipps & Co., Ltd. *Entrance Gates*: Comyn Ching & Co. (London), Ltd. *"Flexometal" W.C. Cubicles*: Flexo-Plywood Industries, Ltd. *Furniture & Fitments*: Flush Woodwork, Ltd. *Ironmongery*: Nettlefold & Moser, Ltd. *Heating & Ventilating*: Norris Warming Co., Ltd *Marble Wall Linings*: Anselm Odling & Son, Ltd. *Metal Door Frames*: Henry Hope & Sons, Ltd. *Paint*: E. Wood, Ltd. *Piling*: Simplex Concrete Piles, Ltd. *Roof Lights over Boilerhouse*: J. A. King & Co., Ltd. *Roofing*: Wm. Briggs & Sons, Ltd. *Sanitary Fittings*: Dent & Hellyer, Ltd. *Steelwork*: Redpath Brown & Co., Ltd. *Structural Floors & Suspended Ceilings*: The Trussed Concrete Steel Co., Ltd. *Terrazzo Pavings & Partitions*: Kendell's Stone & Paving Co., Ltd.; Malacarp Terrazzo Co., Ltd. *Tower Fleche*: J. Starkie Gardner, Ltd.

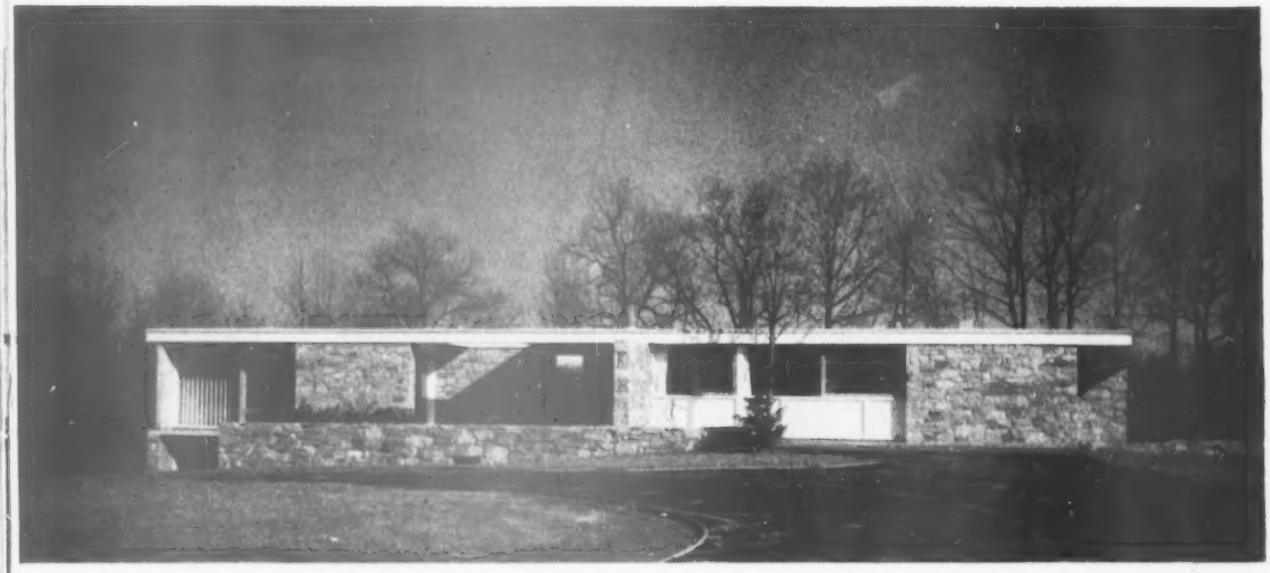
Venetian & Dark Room Blinds: Avery's (Estb. 1834), Ltd. *Wall Dadoes*: Robb's Cement & Enamel Finishes, Ltd. *Waterproofing*: Tretol, Ltd. *Windows, Screens*: C. E. Welstead, Ltd.; Aygee, Ltd. *Woodblock & Semastic Flooring*: Horsley Smith & Co. (Hayes), Ltd. *Wooden Block Flooring*: Acme Flooring & Paving Co., Ltd.

FURNISHINGS. Chairs & Staffroom Furniture: Kingfisher, Ltd. *Gymnasium Equipment*: Spencer Heath & George, Ltd. *Lecture Room Seating*: Educational Supply Association, Ltd. *Pupil's Desks*: Andrew Bentley, Ltd. *Stage & Hall Window Curtains*: Hall & Dixon, Ltd. *Tubular Chairs*: Neeta, Ltd. *Typewriters*: Remington Rand, Ltd.



Top left: The stage in the main hall. Top right: Ten feet to the inch details of reinforced concrete staircase in kitchen, dining room block. Bottom left: Detail of Fléch, scale sixteen feet to one inch. Bottom right: General view of classroom blocks looking North.





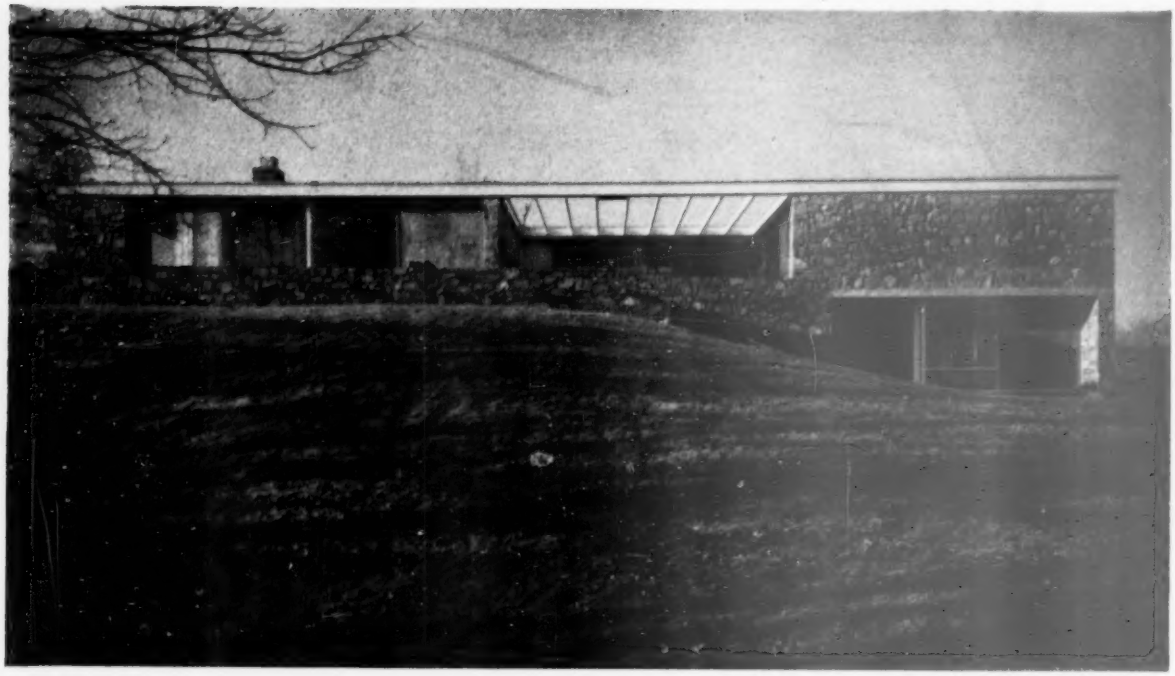
Photos : Ben Schnall

WEST ELEVATION

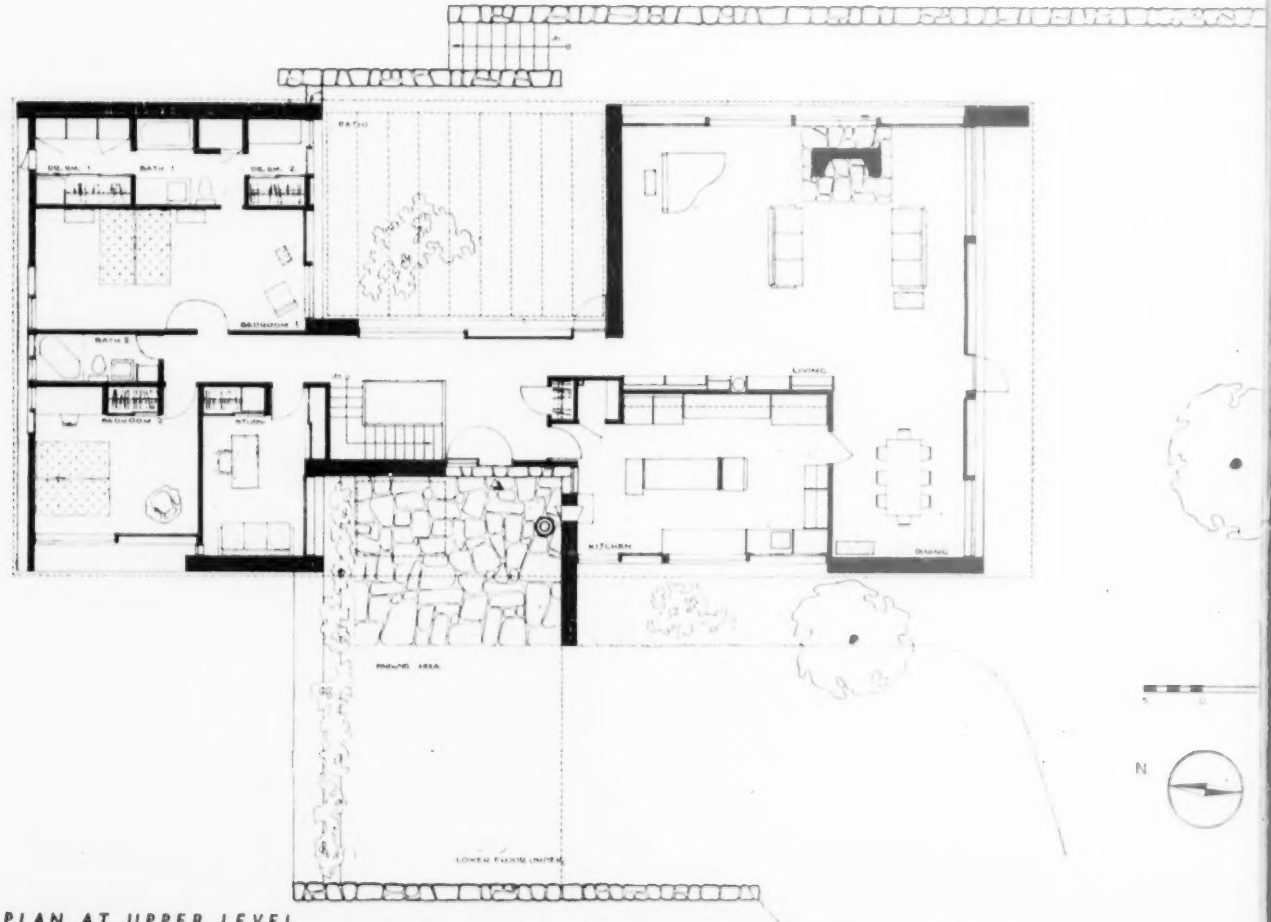
House at Orange, Connecticut

ARCHITECT : MARCEL BREUER

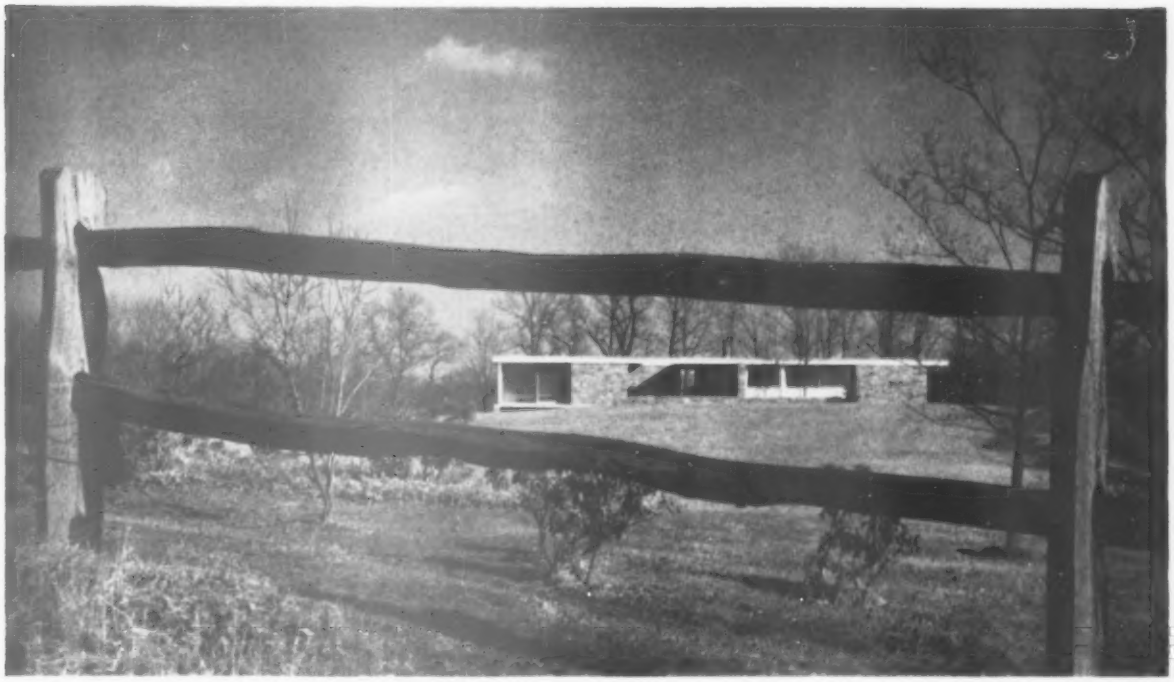
A SIX-BEDROOM house in two storeys, designed to take advantage of the natural slope in the ground. Built in 1949 on a lavish scale, with cavity walls, outer skin of random stone, it contains approximately six thousand square feet of floor space, including garage. Panel walls are either glazed or have a timber infilling. A planning point : The Nursery suite, including a large playroom, is placed diametrical apposite to the living room, at the lower level, with access to the garden on the north side.



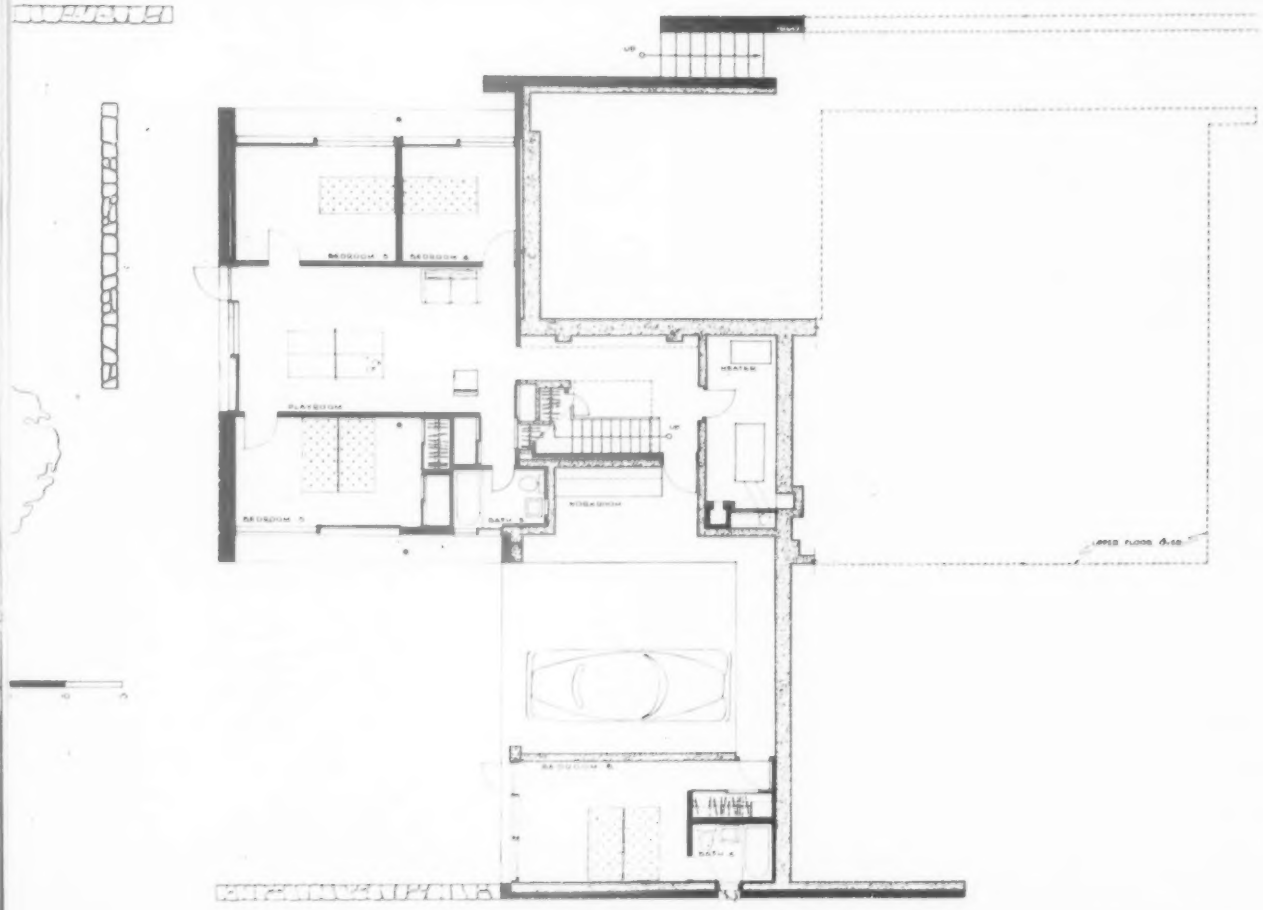
EAST ELEVATION



PLAN AT UPPER LEVEL



HOUSE AT ORANGE



LOWER LEVEL

Top Left: LIVING ROOM FIREPLACE

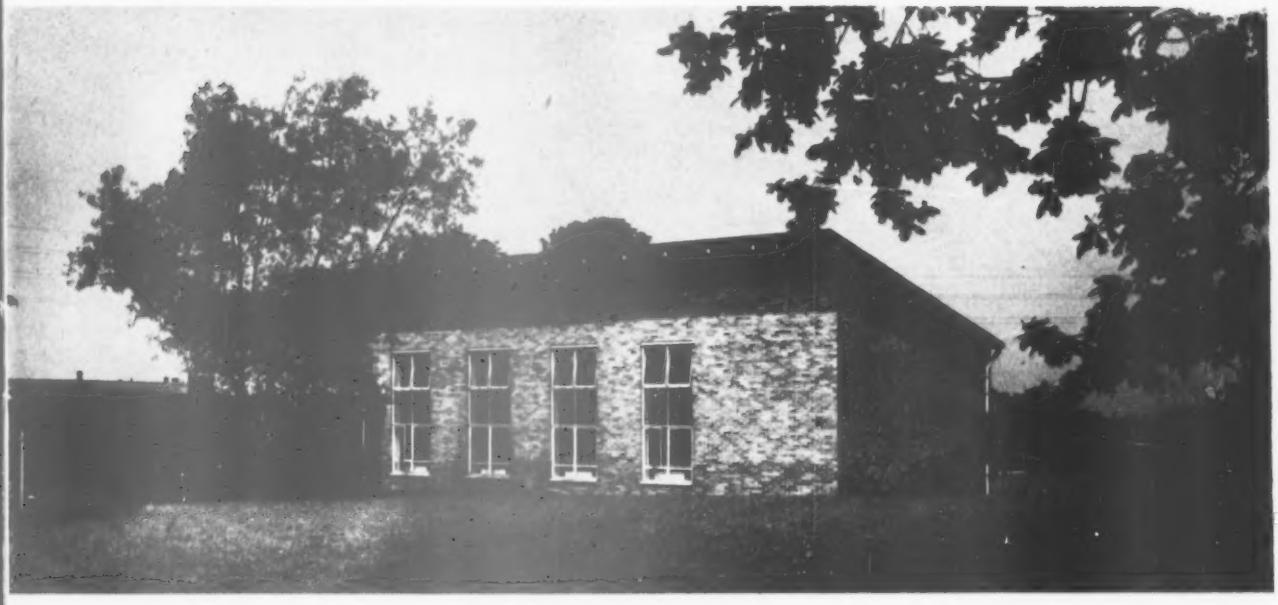
Top Right: LIVING ROOM

Bottom Left: VIEW INTO COURT, SHOWING SLIDING GLASS DOOR

Bottom Right: CHILDREN'S PLAY AREA

House at Orange, Connecticut

KITCHEN



Greenbrow Primary School

Manchester Schools

A Study in the development of school planning

LEONARD C. HOWITT, B.Arch., Dip.T.P., D.P.A., F.R.I.B.A., M.T.P.I., City Architect
S. G. B. ROBERTS, Dip.Arch., A.R.I.B.A., Deputy City Architect

SCHOOL Buildings have been one of the chief mediums for the development of contemporary design since the last war chiefly because it is here that the advancement in form, design, plan pattern and use of colour appear far more apparent than in any other type of architecture.

Whilst it is regrettable that cheapness and nastiness are closely linked in the public mind, a study of Educational Architecture in England and Wales since the war suggests that this is not inevitable.

When the Educational Programme was introduced in 1947 the difficulties were considerable, Manchester's stock of schools had been depleted in number by bombing, and in quality by the seven years' moratorium on new building. The demand for new schools was clamant to meet the higher standards implied by the Education Act of 1944, and to cope with the increase in the school population. A situation which was further aggravated by the increase in the school leaving age.

At this time, 1944, the building industry had not recovered from the effects of the war, while every sector of national life was demanding new buildings or crying out for its war damage to be made good.

Building materials were scarce and the number of skilled craftsmen available were numerically incapable of meeting the demand. These conditions were not temporary, as may have been hoped in the optimism of victory, but to some degree remain to-day and appear likely to be with us for many years.

It was under these conditions that Manchester, in common with other authorities, set about the job of tackling her school building programme and at the same time accepted the challenge of a simultaneous attempt both to raise the standard of school design and reduce costs. The aim was to be not merely cheap schools with a " new look " façade, but better planned schools capable of efficiently fulfilling their function and with a type of architecture in keeping with the changing ideas of the time—in other words the " best value for money."

School planning prior to the publication of the 1944 Education Act had no regard for aspect and teaching spaces were draped around the inevitable quadrangle facing South, East, North and West, and in many of the classrooms the pupils were denied the maximum amount of sunlight. This familiar plan form was accepted as the perfect answer and was almost universally in use.

The development of school planning and layout has been considerably influenced from time to time by the various restrictions, economies, difficulties in obtaining materials in short supply and by Ministry Instructions and Building Programmes, and the following illustrations and notes are produced to indicate their effect upon the development of school planning in Manchester.

MANCHESTER SCHOOLS

The following are schools designed under the "Operational and Short Term Building Programme." :—

Crossacres Primary School

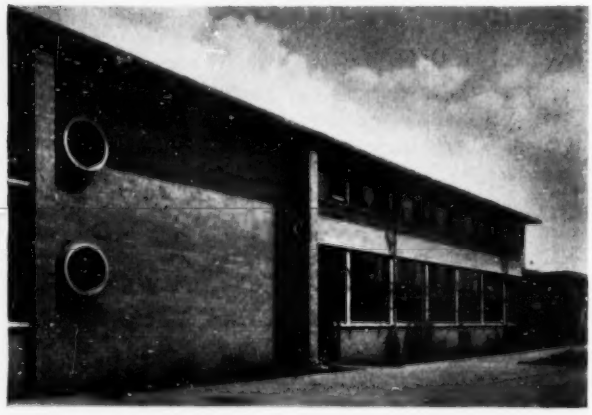
This school was designed an 1947 in accordance with the schedules laid down by the 1944 Act and is the first attempt to break away from what was realized to be the outmoded enclosed quadrangle type of plan previously referred to.

It can be seen clearly from this plan that the accent has been placed upon light and space with the classrooms placed in blocks facing South East to receive the maximum amount of sunlight.

The plan shape generally is open and sprawling and covers a large site area.

The planning allows for an area of 66 sq ft per child and was erected at a cost of £186 per place.

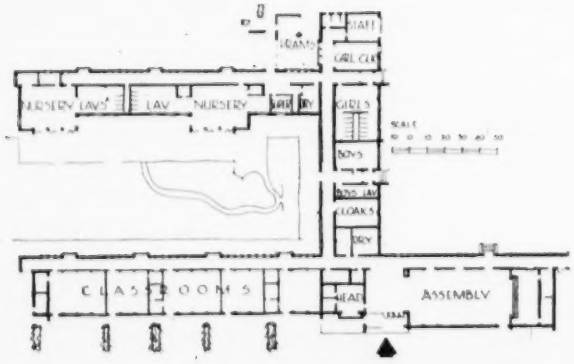
Baguley Hall Primary School

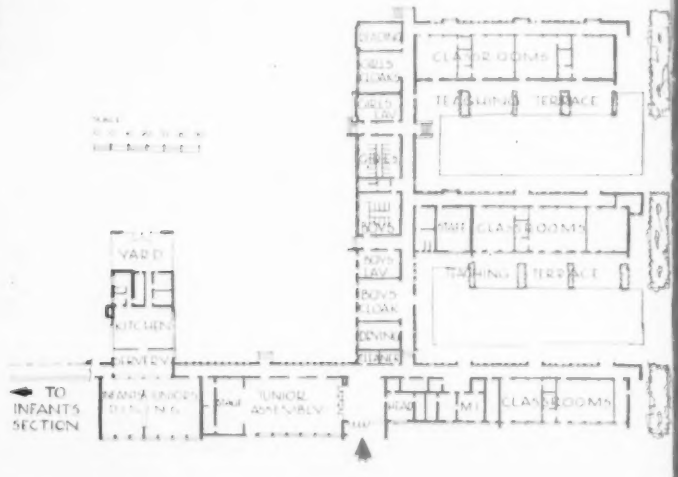


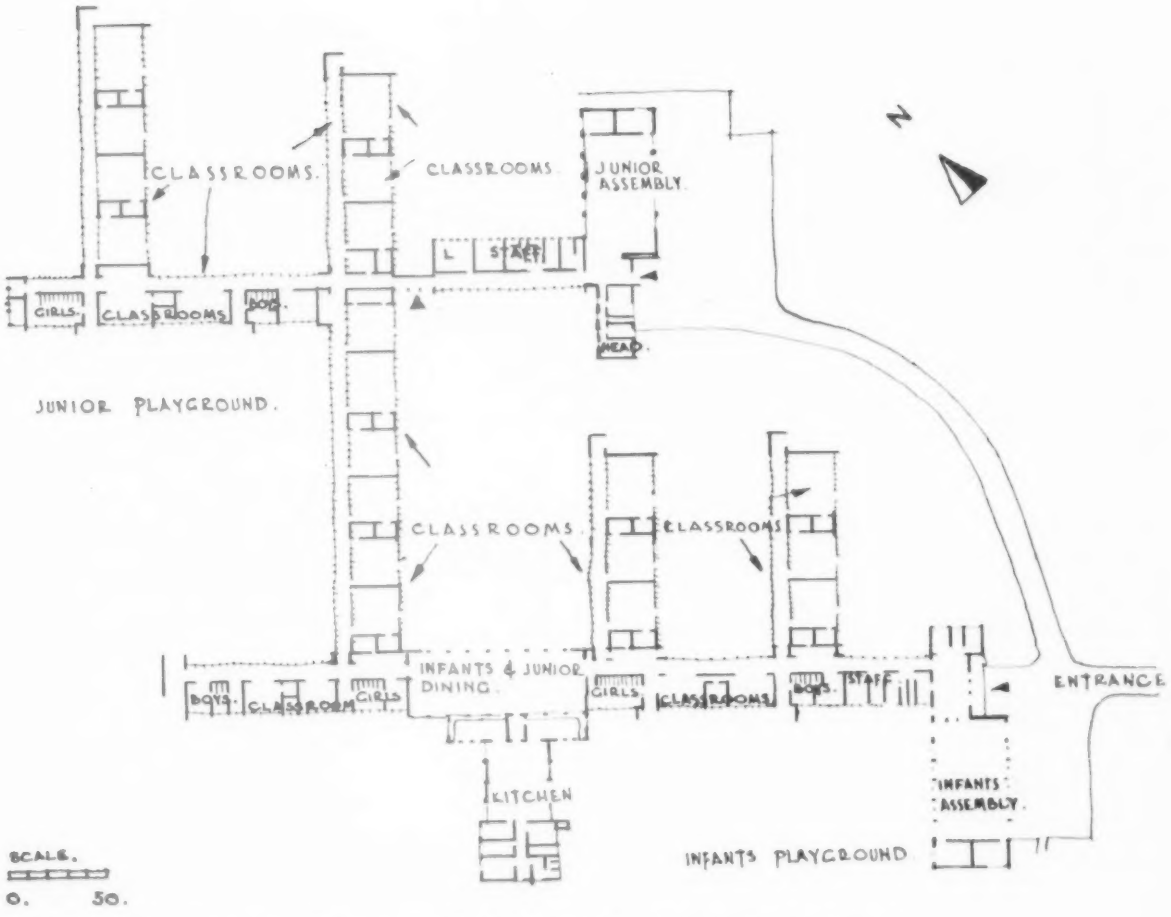
This type of plan is sometimes referred to as "The Finger Plan." Generally the mechanics of the plan are good, the advantages being that the school is divided into distinct zones of noise and quiet. Classrooms in all cases are planned to face South East. Disadvantages of this type of plan are that, due to the extensive area of ground covered, administration is difficult and cloakrooms are, particularly for infants, too far away from the classrooms.

Area per child is 81 sq ft and the cost per child place is £221.

Entrance to Junior School







Newall Green Junior & Infants' Mixed School

Owing to the shortage of building materials and skilled building trades craftsmen, particularly steel and brick-setters, and the ever increasing need for school accommodation, it was decided in this case to use a prefabricated form of construction. The building is designed with classroom blocks, where standardization could be readily applied, in Aluminium and traditional brick construction has been employed in the assembly halls, dining room and kitchen.

Here again is the spreading, sprawled-out type of plan which, in some measure, was forced upon the architect by the design of the Standard Aluminium classroom units of that time, and administration is consequently difficult. The plan is orientated to ensure that classrooms are again facing the South East.

Cost per child place £193.

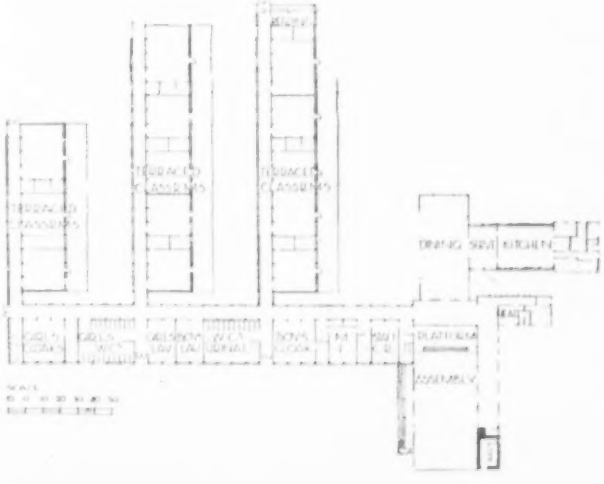
Area per child place 63 sq ft.

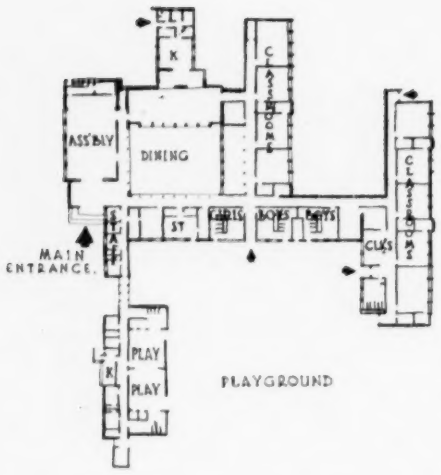
Charlestown Junior Mixed School

A further example of the " Finger Plan " built in a prefabricated construction in an attempt to beat the material and labour shortage. Prefabricated units are of " Uni-Seco " manufacture in 8ft wide panel units.

Cost per child place is £166.

Area per child place is 54 sq ft.





Charlestown Infants' School

One of the schools erected under the "Operational Short Term Building Programme." It will be noticed that this plan is more compact than the previous ones and is designed for construction in traditional materials, with brick load bearing walls and concrete flat roofs.

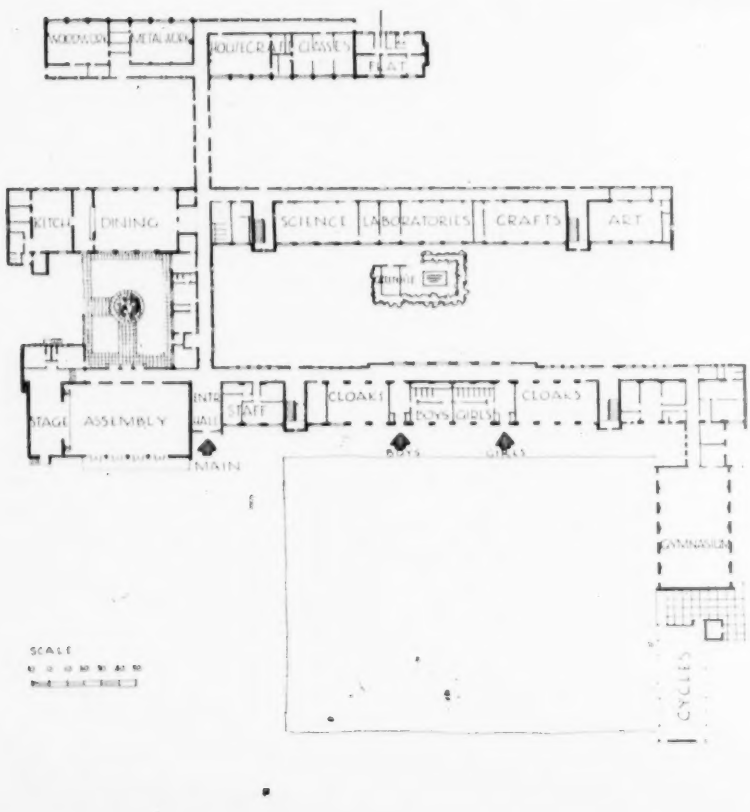
At the time when this plan was designed bricks and brick-setters were more plentiful and the decision to use traditional methods of construction was taken.

The main advantage of this plan is that it is compact and actually marks the beginning of the trend towards a saving in circulation space and ground. Cloakrooms are nearer the classrooms than previous examples.

Cost per child place £198.

Area per child place 67 sq ft.

Above, two views of Baguley Hall Secondary School. Top: General view from the South. Bottom: The Entrance Hall.



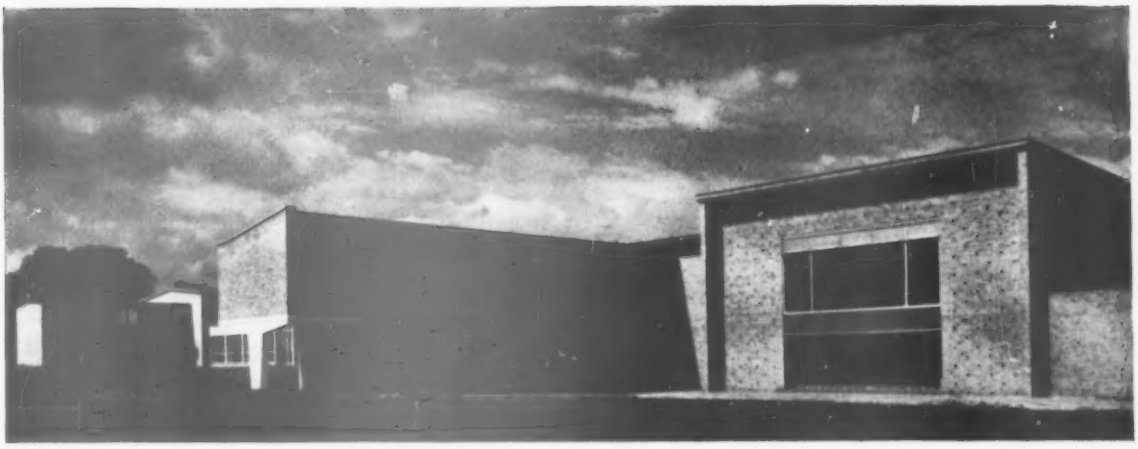
N

Baguley Hall Secondary School

The design for this school was produced in 1947 and consists of a two-storeyed structure with a South East aspect to all the classrooms. Again the "Finger Plan" principle has been fully exploited.

Cost per child place £305.74.

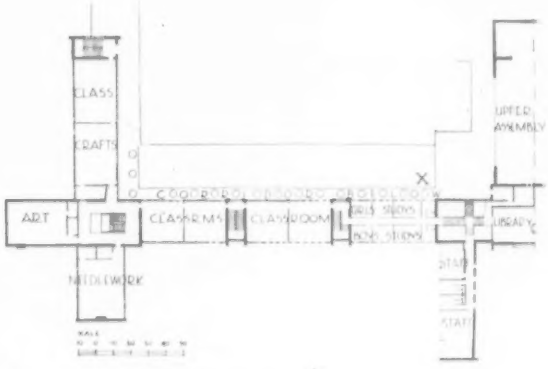
Area per child place 135 sq ft.



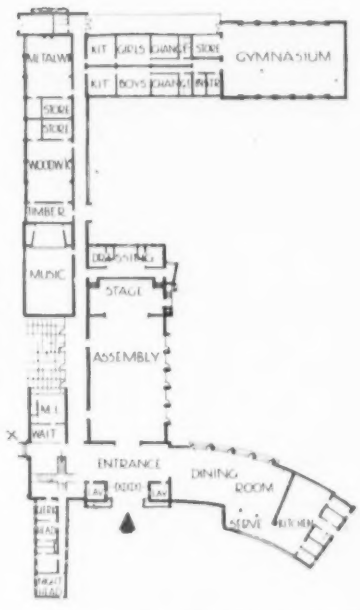
The Main Entrance

Newall Green Secondary School

A similar type of plan to the Baguley Hall School although the layout is more compact.
Cost per child place £330.
Area per child place 130 sq ft.



The plan on the left is the first floor of the classroom wing, that on the right the ground floor of the main school. The two X's are coincident.

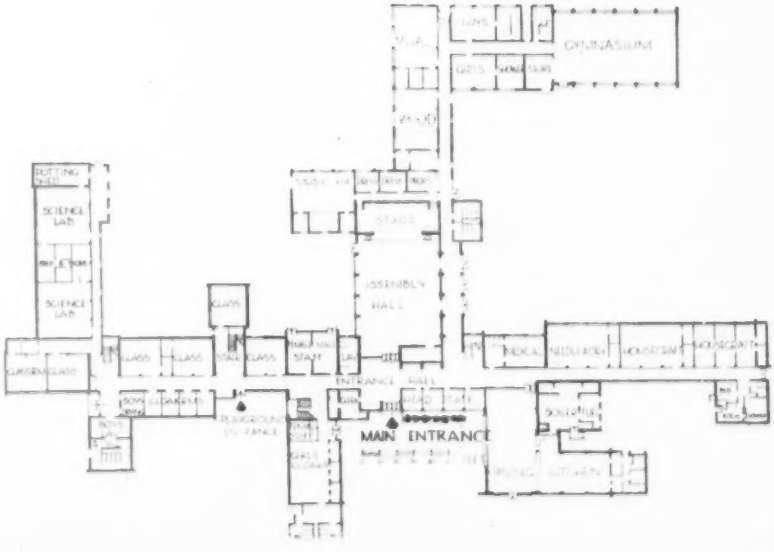


Moss House Secondary School

The planning of this school is even more compact than those of Baguley Hall Secondary and Newall Green Secondary Schools and shows the first signs of the reduction in site area and circulation space.

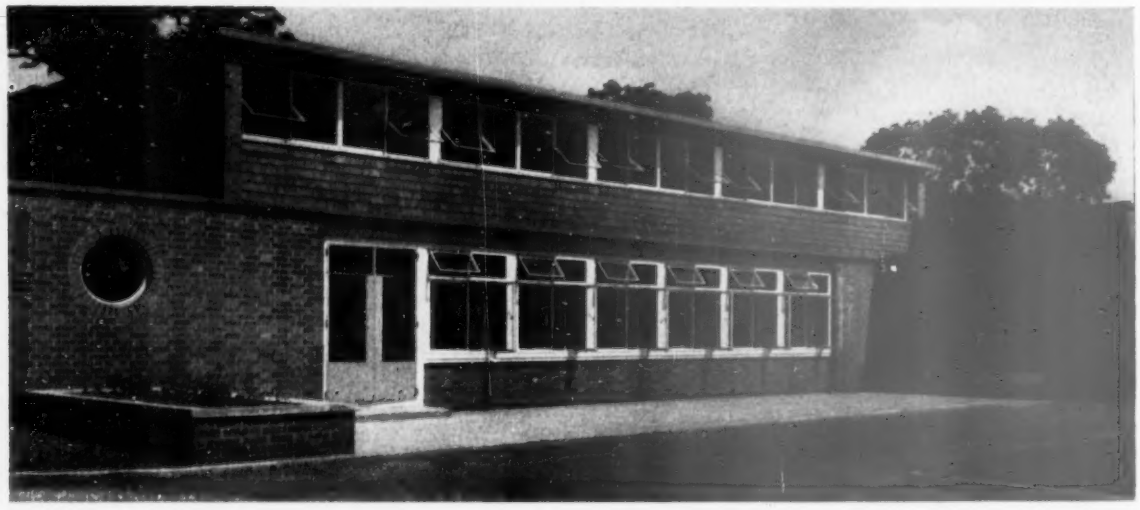
Cost per child place £341.

Area per child place 128 sq ft.



MANCHESTER SCHOOLS

Schools designed in accordance with the Ministry of Education Circular 209 dated October, 1949, which laid down cost target figures and instructed the Authority that in future all Primary Schools were to cost no more than £170 per place and be no greater in area than 55 sq ft per child, and Secondary Schools were to cost £290 per place and be 90 sq ft per child :—



Junior Entrance

Oldwood Primary School

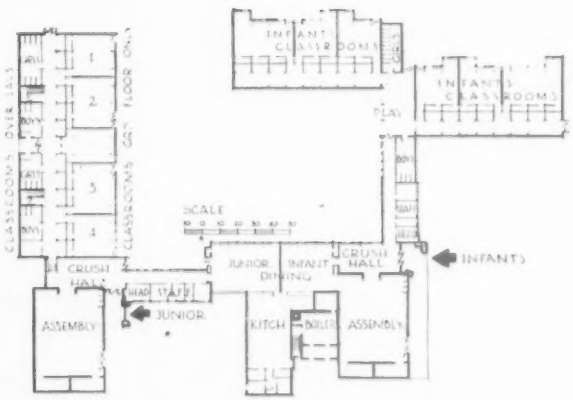
This school was designed in the shadow of Circular No. 209 and although the accommodation is identical with that of Baguley Hall Primary School (previously referred to) the site area covered is considerably less.

Saving of floor areas has been accomplished by the introduction of the two-storey classroom blocks, the Authority's first venture of this kind in primary schools, and the reduction of corridor space. The plan is neat and compact with cloaks and toilets in close proximity to the teaching spaces.

The school has been found easier to administer than the earlier schools and allows for far more ground to be taken up by playing fields.

Cost per child place £132.

Area per child place 50 sq ft (the cost and area per place being well within the Ministry requirements).



Poundswick Primary School

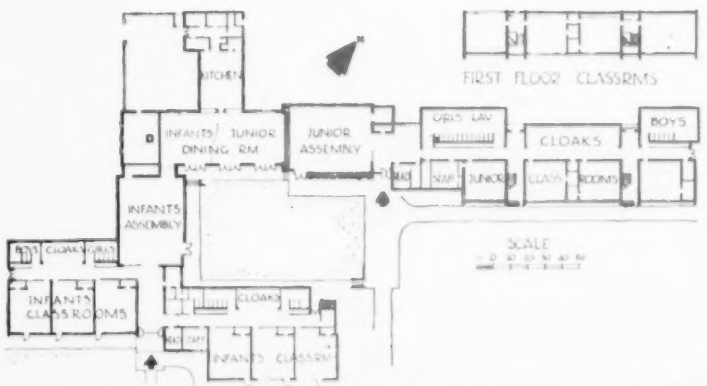
This design was conceived as a result of the Ministry of Education Circular No. 209. It will be noted that circulation space has been reduced to a minimum, cloaks and toilets being adjacent to the classrooms and the junior block designed as a two-storey building.

Further space saving is obtained by using the junior and infant assembly halls as access to the dining room.

Cost per child place £145.78.

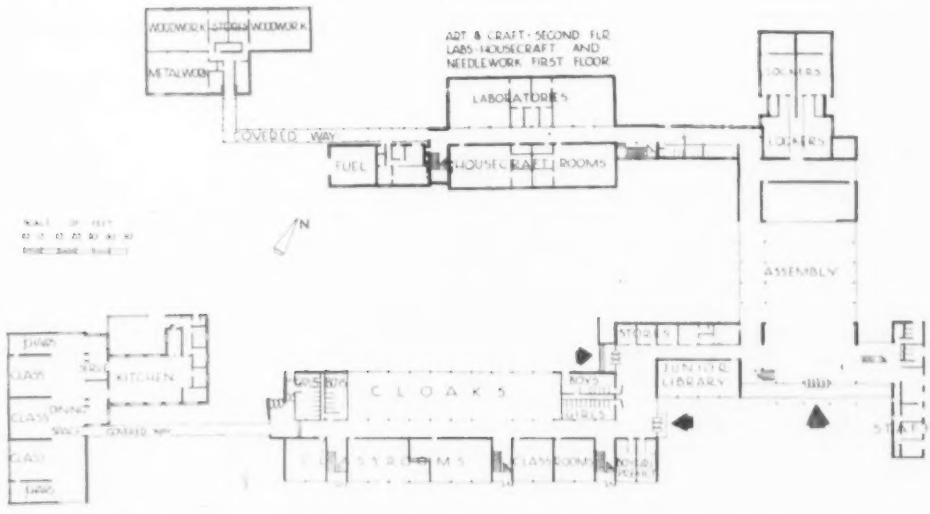
Area per child place 50 sq ft.

The target figure of cost per child place at this date was £170.



South East Elevation of Junior Block

Moston County Secondary School



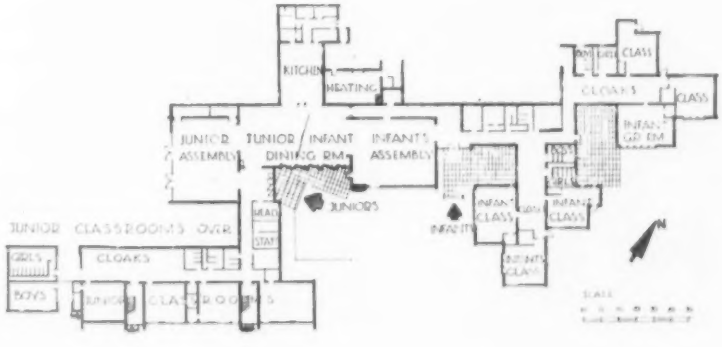
This school was designed to meet the requirements of Circular No. 209 in which the cost laid down by the Minister for Secondary Schools was £290 per child and 90 sq ft per place.

The school is designed as a three-storeyed structure in order to reduce circulation and to meet the restrictions of the site, which is rather small. Three of the classrooms were designed to meet the dual purpose of dining and teaching and are not considered to be very satisfactory.

The school has a floor area of 82 sq ft per scholar and the estimated cost was £288 per place.

At the end of February, 1950, the Ministry of Education issued a further Circular No. 215, which announced that for Educational Building Programmes in 1951 a further reduction in costs below the 1949 figure would have to be effected, and since it was clear that a large number of schools would be required in the coming years this reduction would have to be a substantial one in order to provide the required number from the resources which he (the Minister) had available. The Minister therefore decided that the costs for Primary Schools and Secondary Schools for the 1951 programme would be reduced from £170 per place for Primary and £290 per place for Secondary Schools to £140 and £240 respectively. This was a difficult task to set the architect, particularly when it will be remembered that building costs were still rising.

Button Lane Primary School



This school was designed to meet the requirements of Circular No. 215 and a very compact plan has resulted with the infants' classrooms designed *en suite* with the cloaks and toilets and the junior school as a two-storeyed structure. A feature of this plan is the considerable saving in circulation space which has been accomplished, a " must " in designing of the school if the figures laid down by the Minister were to be obtained.

Cost per child place £138.

Area per child place 50 sq ft.

Again good planning and constructional design and careful use of materials had accomplished the target set by the Minister.

MANCHESTER SCHOOLS

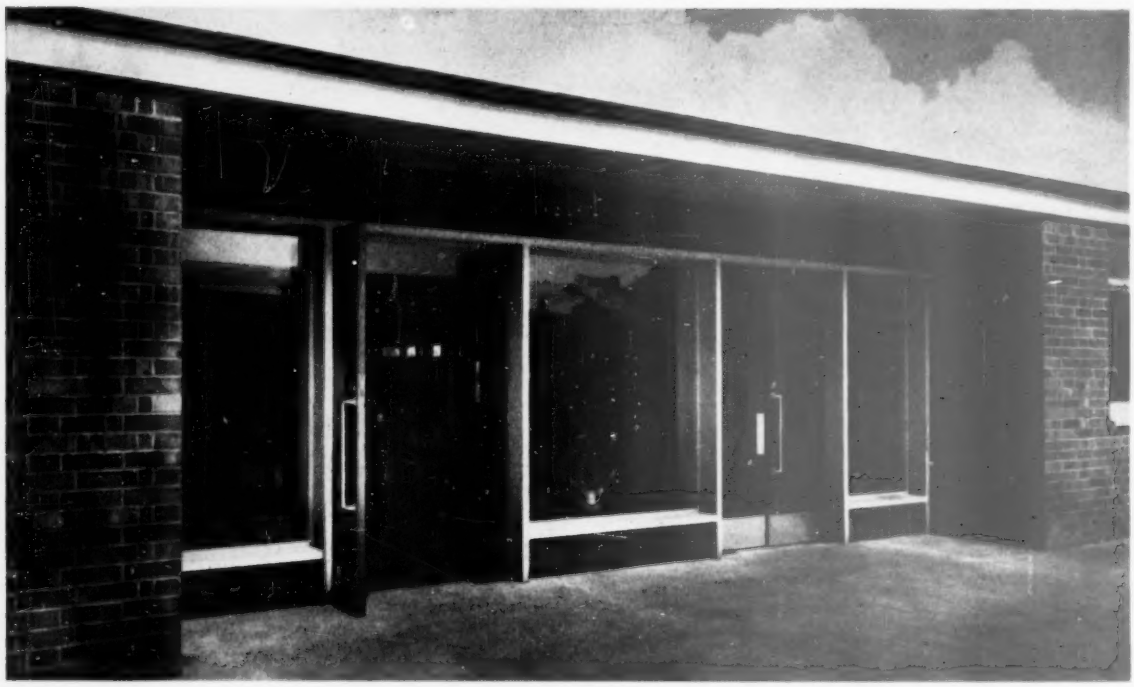
Woodhouse Lane Primary School

A further example of a school designed under the restrictions of Circular No. 215. The plan is a development on the Button Lane principle —the infants' classrooms are designed in two blocks of three *en suite* with their lavatories and cloakroom. The infants' assembly hall is again used as access to the Dining Room and the junior block is two storeyed. The design is compact on plan and as a consequence heating and electrical installations have proved very economical.

Cost per child place £133.

Area per child place 50 sq ft.

Junior Entrance

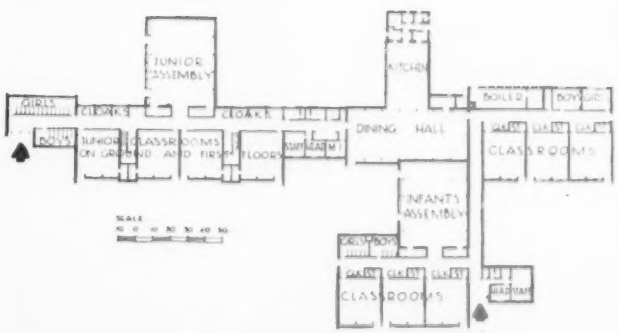


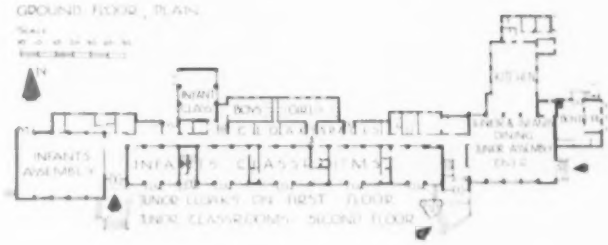
Brooklands Primary School

Compact planning has again been successfully accomplished, toilets and cloaks adjoining the teaching spaces and the two assembly halls forming the lung of each department of the school.

Cost per child place £140.

Area per child place 49 sq ft.





Crab Lane County Primary School

A very difficult site has dictated the pattern of the plan.

The school is three storeyed with the infants on the ground floor and the juniors on the floors above. The circulation areas have been reduced to the minimum and an area of 48 sq ft per child place has been obtained.

The construction is traditional.

Cost per child place is £140.

1952-1953 BUILDING PROGRAMME

The present Minister of Education, very soon after taking office, in point of fact on February 4, 1952, issued to Local Authorities Circular No. 245, which stressed once more the need for financial economy, the shortage of steel and the temporary overloading of the building industry, which necessitated the revision of the Education Building Programme for 1952 onwards.

The Minister of Education suggested that Local Authorities might design the Primary Schools to 42 sq ft per child place and the Secondary Schools to 72 sq ft per child place with a controlling " yardstick " for steel tonnage available of one ton for every £950 worth of work executed. There were no cost targets laid down because the Minister felt that in view of the circumstances prevailing the Authorities would not expect the current limits of £140 and £240 per place to be raised, although the Minister is keeping the trend of the building prices closely under review.

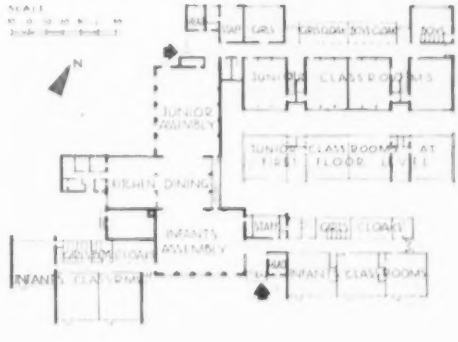
This set the architects thinking how to overcome what appeared to be the almost impossible task laid down by the Minister in this Circular and building to the cost targets figures of £140 and £240 despite the fact that building costs had esculated by 20%, how to reduce the area per child place to 42 sq ft for Primary and 72 sq ft for Secondary Schools, and how to build with the very limited amount of steel allowed whilst still retaining a good standard of construction and finish and producing a building of architectural merit. As it will be readily seen to meet these conditions the size, shape and structural form of the schools were affected.

Peel Hall Primary School

Peel Hall Primary School was designed to meet the conditions laid down in Circular 245, which in the Manchester City Architect's Office was referred to as " Operation Sardine " and a new form of construction was evolved, using a ¾ glued laminated wooden truss constructed of " off licence " timber, to defeat the shortage of steel.

The circulation areas of the plan were reduced to the absolute minimum. The siting of lavatories and cloaks were placed adjacent to the infants' classrooms and the junior portion two storeyed with an elbow access staircase on the lines found from earlier experience to be both economical in cost and efficient in management.

The planning of this school has demanded considerable skill and ingenuity and is considered to represent a remarkable saving in area and cost per child place, these being 42 sq ft and £136 per place respectively.



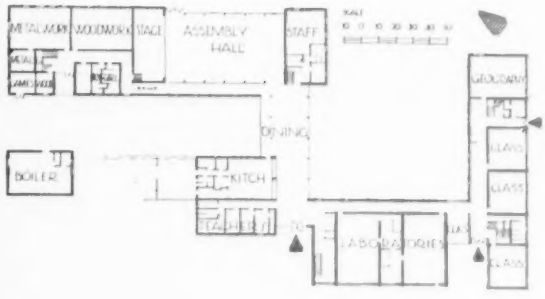
MANCHESTER SCHOOLS

Moss Nook Secondary School

Designed in the 1952/53 Building Programme under circular No. 245 and is one of the Authority's latest designs for a Secondary Modern School on three floors.

The plan pattern has been devised on the cellular form with a 25ft 0in maximum span to facilitate the use of prestressed precast concrete beams, thereby saving steel and keeping within the Ministry's target figure of one ton to every £950 worth of building work. The plan is considered by the Authority to be a good one, compact and easy for administration with short traffic lines and circulation areas reduced to the minimum. It should be noted that to meet the needs of economy dual use has been made of the entrance hall for dining purposes.

The estimated cost per place is £237 and the area per scholar 67.8 sq ft, the former being £3 less than the target amount set by the Minister and the latter showing a saving of 5.2 sq ft per scholar.

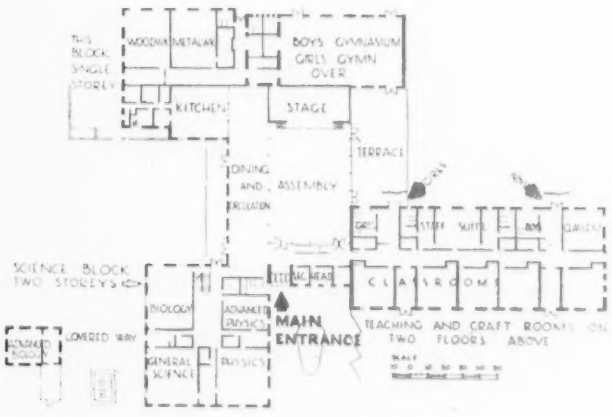


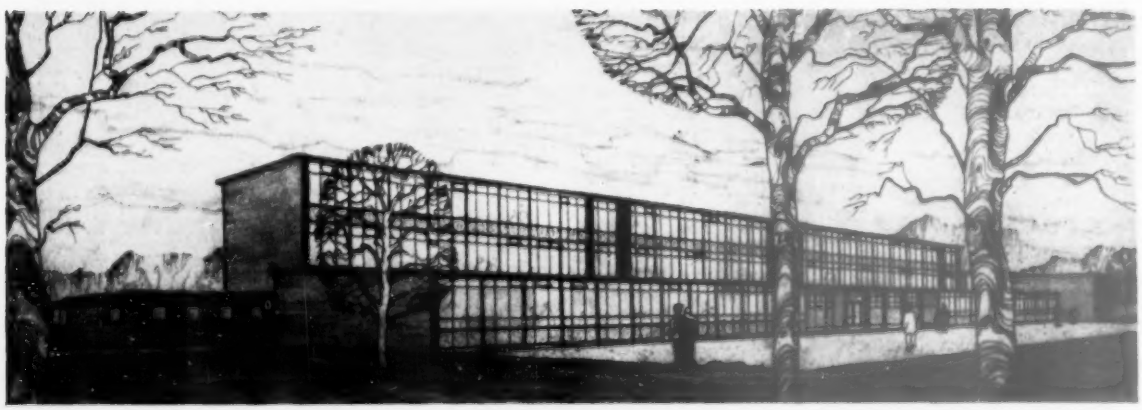
Poundswick County Grammar School

This school is a four form entry mixed secondary grammar school for 600 pupils plus 120 sixth form pupils giving a total of 720 pupils in all.

Sixth form pupils present a special problem in school planning and this has been a major factor in dictating the plan form. Special study rooms and rooms for advanced work when preparing for University entrance or Scholarships made it essential that various aspects of the plan be static, at the expense of even greater economy in space. It was decided with the Education Authority that the school be planned upon an activity unit basis; for example, all laboratories are grouped together.

Also, economy dictates that planning be as compact as possible commensurate with efficiency, therefore necessitating multiple use of various areas and cutting down circulation space to a minimum.





Classrooms from the East, Oldwood County Secondary School.

[Continued on page 811

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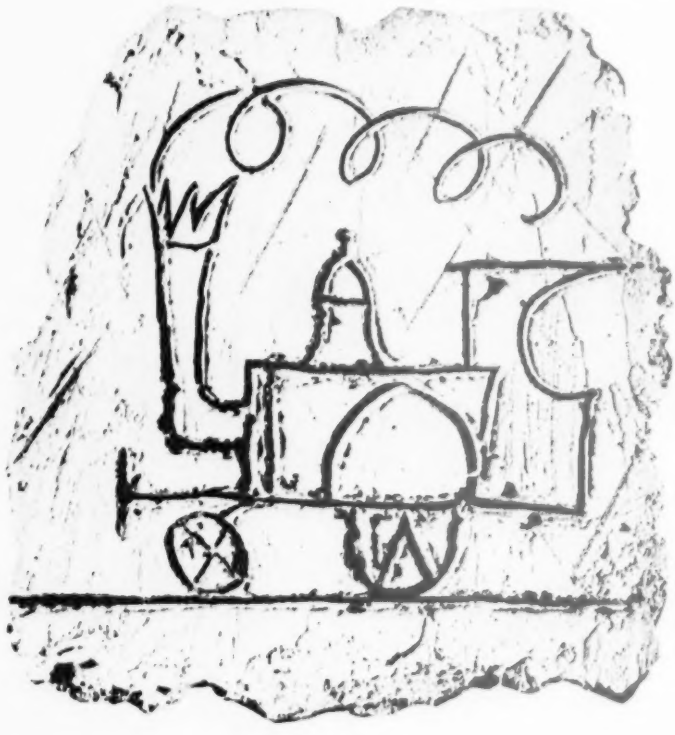

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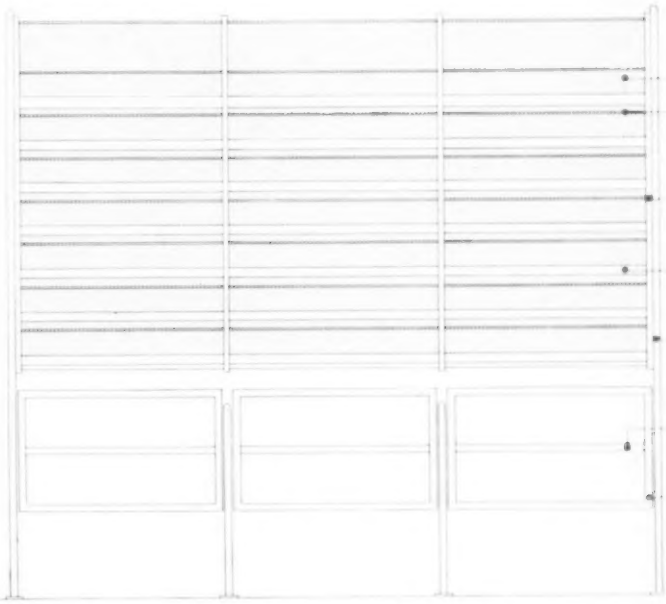
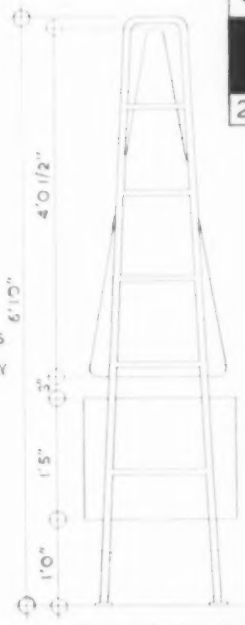
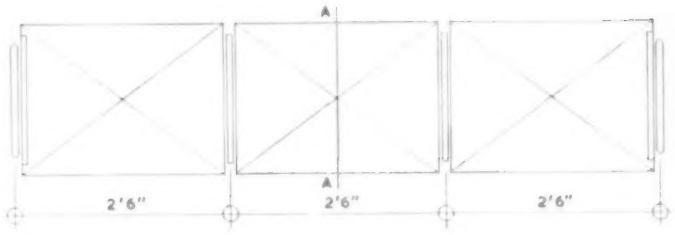


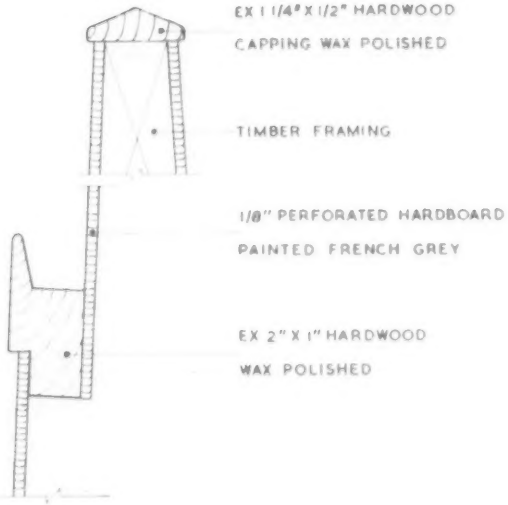
ELEVATION SCALE: 1/2" TO 1'0"



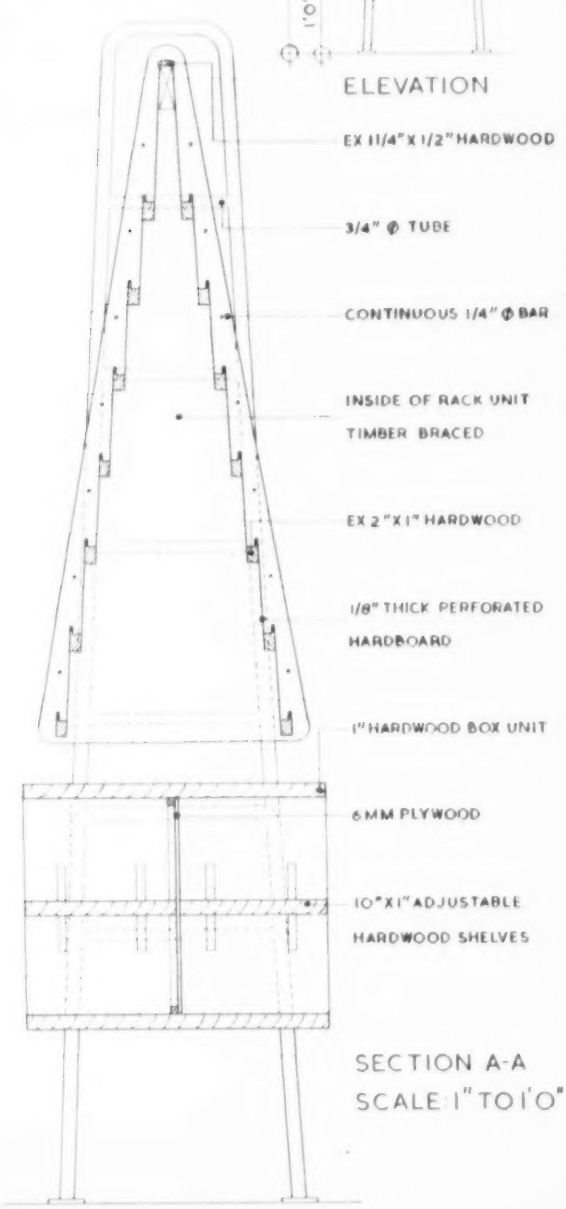
ELEVATION



PLAN



HALF FULL SIZE DETAIL



SECTION A-A
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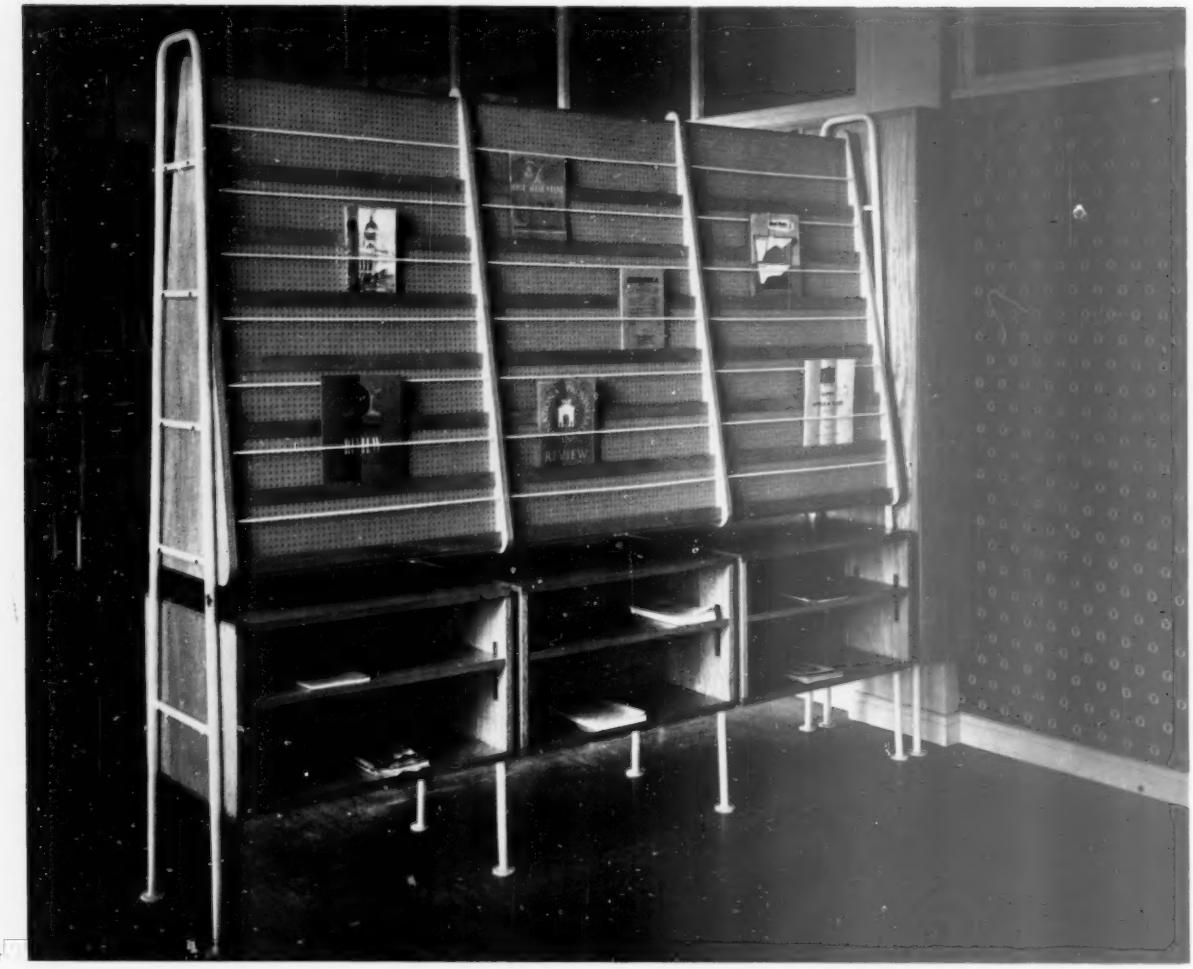

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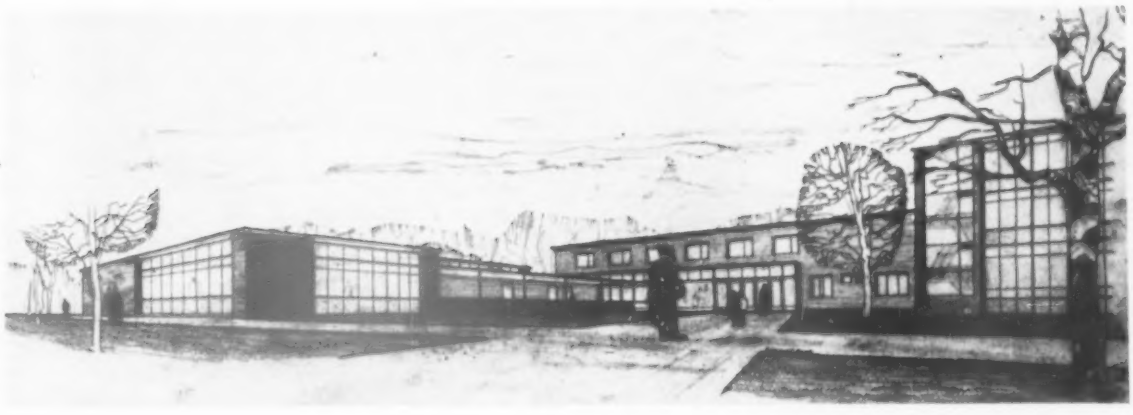
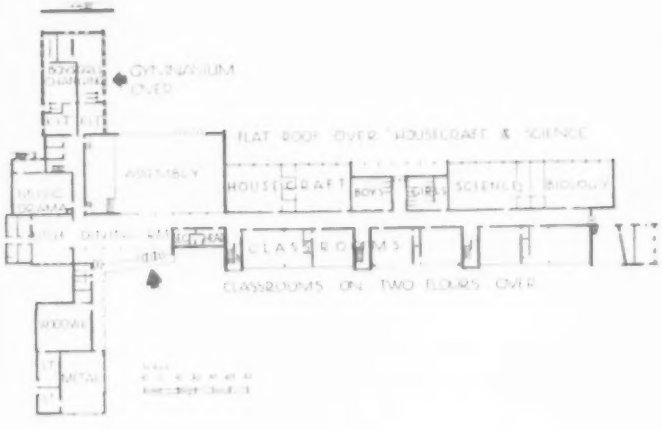
MANCHESTER SCHOOLS

Continued from page 810



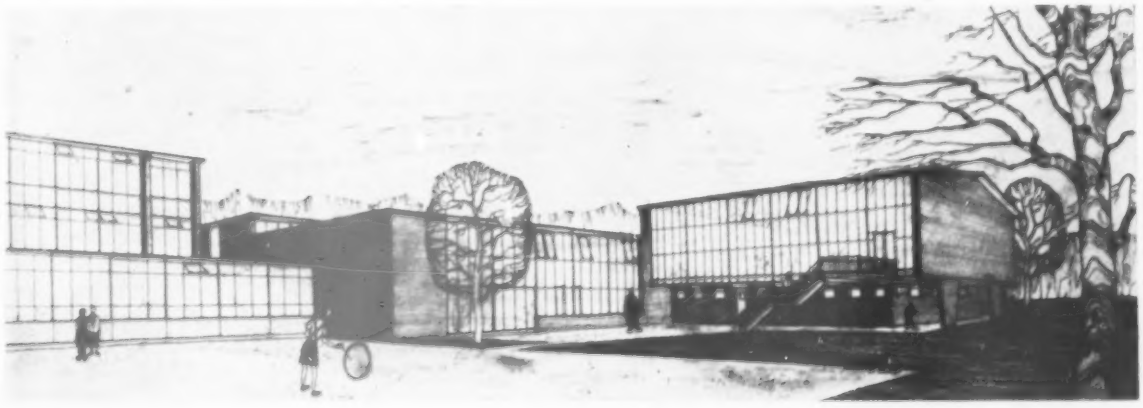
Main Entrance

Oldwood County Secondary School



Savings in steel were one of the main factors in deciding the design and plan form of this school and were accomplished by the use of prestressed reinforced concrete beams, which have entailed the use of a grid system of planning based upon the permissible spans of the beams. In this way a form of three storeyed cellular construction has been derived for the classroom block indicating vertical load bearing brick cross walls and horizontal beam infilling to form floor and ceiling. Vertical circulation has resulted and therefore corridors have been completely eliminated above ground floor level.

The entrance hall serves the dual role of dining room and hall. The gymnasium is at first floor level with dressing rooms at ground floor level giving direct access to playing fields and allowing them to be conveniently used in conjunction with the assembly hall stage. Woodwork and metalwork rooms have been segregated from the main teaching area because of noise. Plan form should be good for supervision and is economical in space. Work on the building of this school has just been commenced. Cost per child place £228 (estimated). Area per child place 78 sq ft.



View from the North East

MANCHESTER SCHOOLS

Analysis

The school consists of various activity units grouped around a central core which acts as the main hub of the school plan. This core consists of the ground floor of the main entrance hall, crush hall, principal staff rooms, dining and circulation area and the assembly hall and stage and on the first floor, libraries, division rooms, the small hall and crush space.

On the ground floor the crush hall serves three purposes; that of circulation space, waiting space for the staff rooms and an exhibition area.

There is triple usage of the dining area which serves as dining space and circulation space, and also acts as an overflow to the assembly hall on such occasions as speech days, etc. The assembly hall and stage will be used for most school functions and an additional use of the hall would be for extra dining space. Educationalists requested that the libraries be situated as centrally as possible in the school to be readily accessible from all areas requiring easy reference—a condition dictated by sixth form pupils.

Therefore the libraries are placed on the first floor in the central core with ready access from the crush hall, the teaching block and the laboratory unit.

A large library, a small library, division rooms and stores constitute the accommodation, the two division rooms being easily made into a larger teaching unit by means of a sliding screen.

Across the crush hall is a quiet study unit consisting of a division room and a quiet room.

A spacial economy is effected by virtually taking the small hall out of the area of the assembly hall.

Music and various dramatic arts will be taught in the small hall, therefore it will be insulated to contain the sound.

On the South East side of the central core is the main teaching block which contains the formal teaching spaces, staff rooms housecraft, and art and craft rooms together with the requisite cloakroom and sanitary accommodation. The block is a three-storey, double-banked unit served by two staircases with a central corridor on each floor. Lighting to the corridor is by borrowed light through glazed screens between the classrooms and the cloaks alcoves.

Double banking in this unit makes a major saving in space since two lines of rooms are served by only one corridor.

Added interest and special play is given to the corridor by the borrowed lights and cloaks alcoves.

In the approximate form of a square the laboratory block is on the South West of the central core. Basically the unit is planned by a grouping of laboratories around a spacious circulation area, this being brought about by the request that whilst the circulation area of the laboratory block be easily accessible from the remainder of the school it must not be a major circulation area, merely circulation for the internal use of the laboratory block, since chemicals and equipment would be carried from lab. to lab. from time to time. Dual use of the circulation space is envisaged, i.e., for both cloaks and circulation. Advanced labs. for sixth form work have been provided and it can be seen that they are within easy distance of the libraries and study rooms on the first floor, therefore this portion plus the part of the central core form an important sixth form study unit.

It will also be seen that the tiered science demonstration room will serve as a lecture theatre for many of the other subjects if necessary and is really accessible, being situated near the central core.

Since deliveries and noise form a common factor to areas like the kitchens, woodwork and metalwork rooms and the gymnasia, they are grouped on the North side of the central core away from the teaching area.

A service road brings supplies to the kitchen and the woodwork and metalwork room on the North West side of the plan; therefore the stores to these areas are situated on the extreme North West and the boiler house is under the stores, thus grouping all heavy deliveries together.

The kitchen, to provide 500 meals, and the auxiliary rooms and stores to it form a unit which can easily be cut off from the remainder of the school.

Isolation of the woodwork and metalwork areas because of noise and the problem of bulk deliveries of timber and metal were the main factors which dictated the position of this unit, cloaks accommodation is provided and access to the woodwork and metalwork is from the main dining space under the vertical access staircase to the gymnasia.

Free access to the playing fields and noise played a major part in determining the position of the gymnasia, which for economy are built one on top of the other, thus enabling use to be made of the height by putting apparatus stores and changing and kit rooms and showers on mezzanine floors with a vertical circulation by staircase.

The playing fields can be reached either from the lower gymnasium or via a corridor at the side; sanitary accommodation for use by pupils on the playing fields and the gym and workshop unit are included.

From the foregoing paragraphs it can be seen that the grammar schools present fresh problems in planning, of which this is one solution—a central core with the activity units radiating from it, to form a whole, the various units of which impinge upon the centre, are easily accessible from, and compactly planned about it as a hub.

Conclusion

From developments in school planning in Manchester it has been found that many of the economic factors, introduced since 1947, which in the first place caused difficulties, have, in a way, assisted in evolving a far more useful and compact school which is suitable in every respect to meet the needs of the teachers and scholars who use the buildings, easy of administration, architecturally pleasing, and in which value for money has been achieved.

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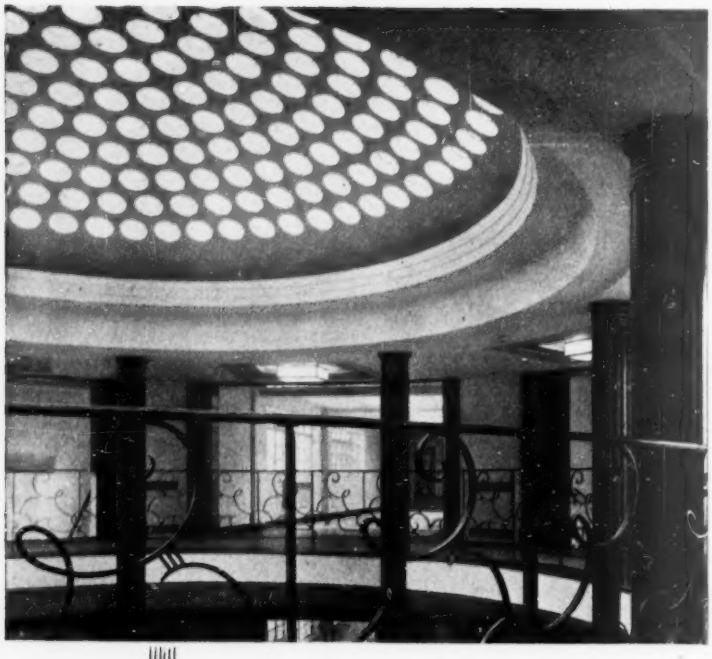

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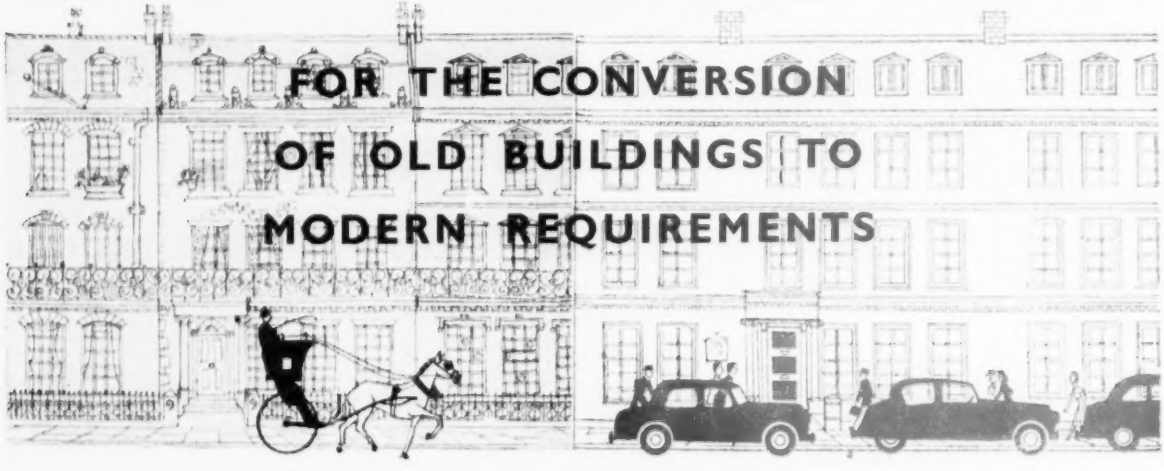

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Flues Again

I AM pleased to see Building Research Station Digest No. 60 on condensation in domestic chimneys as it seems so essential to call attention constantly to the necessity of taking precautions in new buildings to offset this serious cause of costly reinstatement. I can confirm that the figure given for defects in some estates runs as high as 90 per cent of houses, and not only are there troubles arising from boiler flues but also where closed stoves have been installed.

I would have liked to have seen an entire Digest devoted to the various methods of dealing with flues which have become defective as no doubt the B.R.S. has accumulated considerable experience of the best and least costly methods of putting right flues and the surrounding building work. In this connection I would have liked to have seen some typical examples of how lengths of asbestos pipe have been installed in existing flues and just how the ends are handled in their fixings and finishings. Incidentally, in many instances one length of asbestos cement pipe will not reach from the outlet of the smoke pipe from the appliance to just below the junction of the stack with the roof as this may amount to as much as 14 or 15ft and even more; asbestos cement flue pipes are not generally more than 6ft in length, according to B.S. 835.

It would help some builders to know whether it is safe to insert from the top of the stack several lengths of flue pipe, possibly unjointed and let them carry their own combined weights, thus making it necessary to cut into the stack at one point only, where the lowest end is secured and connected to the smoke pipe from the appliance.

I should, as I am sure others would, like more information as to just what are the "convenient methods" of fixing the lower end of the pipe and making good. How often would it be necessary to support long lengths of asbestos-cement flue pipes—would support at each socket be enough, as is shown in the Digest for clay pipes used at lower ends of stacks?

I would also have liked to have seen the Digest more definite on the matter of flue sizes in relation to boiler sizes. I feel that 4in diameter flues are only suitable for the smallest sizes of boiler, as used in small dwellings, which only have a very small amount of heating surface provided in addition to the hot-water supply. Where there is a general central-heating system, or in cases where one might eventually be installed, I would prefer not to install flues of less than 6in diameter.

I notice the Digest does not mention the use of normal clayware flue linings as covered by B.S. 1181 for flues for boilers, cookers and other slow-burning appliances; these are 8in diameter or 7½in × 7½in square inside, so I assume that this omission is for the reason that B.R.S. feels that these flue areas are too large for most normal domestic size slow-burning appliances. It always seems to me that it would be desirable to develop proper flue linings of smaller sectional areas than those now available in order to encourage the use of more suitable flue areas. I feel that although drain pipes may be useful as flue linings they are not designed for the purpose and for that reason proper flue linings are preferable.

I am interested to see that in the Digest stress is laid on the need to install drain pipes with the sockets upwards and that the jointing mortar is better if made with high-alumina cement. The alternative method of jointing suggested, namely, by packing the sockets with asbestos cord and flaunching with high-alumina cement, strikes me as being very much better than normal jointing.

The paragraph on the protection of flues against rain is an interesting one. It has often occurred to me that it would be advantageous to cover flue outlets to prevent direct entry of rain as there are so many examples of old chimneys up and down the country in which this precaution has been taken, but the practice appears to have died out. It is a pity B.R.S. states "care may be needed in the design of the cover if trouble is to be avoided" without giving an indication either of what the troubles may be or how to avoid them. I am very glad to see the advice that it is preferable not to render a brickwork chimney unless it is lined as I am sure from experience that this is very sound, especially if the chimney incorporates a flue from a slow-burning appliance. The associated advice on rendering is equally sound, namely, to use a more porous rendering such as 1 : 1 : 6 lime/cement/sand. I wish I could understand why builders and their operatives have such a fixed idea that the greater the proportion of cement in a mix the better the resultant product because in most instances it is not only nonsense but very costly. B.R.S., M.O.W., Codes of Practice and advice from almost every quarter keep on stressing the right types of mortar and rendering mixes, but daily one sees incorrect mixes being prepared or the failures resulting from them. I do not see so very many building specifications but quite a proportion of those I do see which are prepared by reputable architects (or is it their quantity surveyors?) seem to have followed the advice given, but this does not seem to be carried out on the job, nor is it followed by the smaller builders and sub-contractors.

It is my experience that the information on the effect of the introduction of extra air into the flues for slow-burning fires will be found to be quite effective in many instances. There are, however, cases which have proved to be ineffective without a very easily controlled ventilator which can be closed when there is a risk of down-draught under certain wind or other atmospheric conditions. In regard to aperture sizes, the sentence in the Digest might have been more clear if it had referred to the aggregate of the areas of the apertures being not greater than 6 or 8in. Personally, I think it is wise in all cases to have larger areas and a form of adjustment which can always be varied and not fixed following trials as the differences of wind speed affect so much the rate of burning on most installations.

I am sure very many will appreciate the detailed advice given in this Digest on the methods of dealing with stained plaster as I have seen so many examples of failure to eliminate this staining adequately after precautions or repairs to flues have been completed. The method involving battening of the wall will, however, frequently be found to be impracticable as it involves treating large areas, such as the whole side of a room, if surfaces are to be kept flush.

The final paragraph relating to the desirability of storing fuel in a dry place and not burning wet rubbish is again sound advice, but in practice both these are often difficult to achieve, especially the former. Summer fuel prices are made specially low to encourage householders to carry their own winter fuel stocks but, following the advice of the Housing Ministry, local authorities do not provide adequate space for their tenants to store sufficient fuel in a dry place—a ton of coke requires more space than is usually provided in the total fuel storage accommodation. The disposal of wet rubbish without resorting to putting it in the boiler should be no hardship to those with gardens as it helps greatly when used as part of the compost heap, but in flats or dwellings with very small gardens and only weekly garbage collections wet rubbish can easily become a very unpleasant nuisance.

DUTCH UNCLE

General Knowledge Competition

In the Building and General Knowledge Competition run by the Building Apprentices and Students Association Rowing Club at the recent Building Exhibition, at Olympia, the following were the winners of prizes given by the organizers of the Building Exhibition:

1st Prize—10 *guineas:* Miss Elizabeth Holliss, 36, Rodway Road, Bromley, Kent.

2nd Prize—5 *guineas:* Mr. Dennis A. Smith, M/Y "Arosian," c/o Richmond Slipways, 1, Ducks Walk, East Twickenham, Middlesex.

3rd Prize—3 *guineas:* Mr. N. V. Riley, 72, Lewin Road, Streatham, S.W.16.

Three Prizes—1 *guinea each.*—Mr. J. W. Parton, Mr. R. D. Lovrey, and Mr. Leslie O. Wilson.

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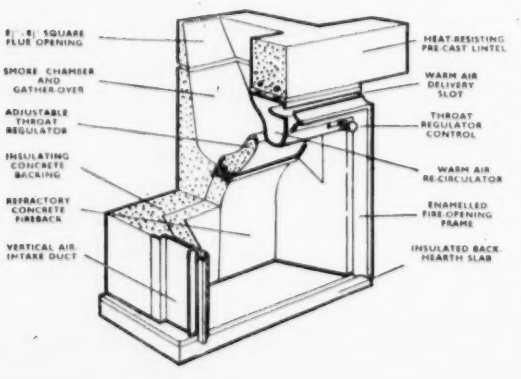
MACHINERY E1/10

The Nufloor "Universal" sander is a lightweight 8in sanding machine specially designed to meet the need for a really portable model. In both design and styling it is entirely new. The light alloy underslung body is integrally cast with the fan intake providing excellent handling qualities and the new 1 h.p. A.C./D.C. electric motor increases portability (weight under 90lb). The offset drum operating at 1,600 r.p.m. enables sanding right up to the edge of the skirting at a rate of 3,000 surface feet per minute.

A heavy-duty fan facilitates vacuum dust extraction. The fan itself is mounted directly on the motor spindles and in this way eliminates fan bearings and belt. The dust bag is easily removable and makes the whole operation completely dustless. Made by Nufloor Ltd., 34-36 Laureston Road, E.9.

SERVICES
WATER HEATING
B6/14

The new Agamatic 25/40 Boiler by Aga Heat Ltd., 20 North Audley Street, W.1, has been designed externally by Carl Otto. A small piece of equipment, only 18in square on plan and 2ft 4½in high, it gives half the output of the Agamatic and is not intended to supply central heating. It is claimed to heat sufficient water for two baths in an hour and is thermostatically controlled. It has all the usual features of the finely designed "Aga" range.



STRUCTURES
FIREPLACES A4/7

"Finch-Fire Unit," by B. Finch & Co., Ltd., Belvedere Works, Barkingside, Essex, has been designed recently after considerable research by the same firm that made the well-known "Throat Unit." It is claimed to be the only fire unit marketed with the following advantages:—Controllable throat restriction, maximum heat radiation, complete insulation, designed to avoid down-draught, retain room heat and prevent cold draughts, with economy of fuel and heat recirculation, it is supplied and installed as a unit which requires a simplified form of chimney construction.

INDUSTRIAL NOTES

● The Ideal Home Exhibition of 1954 will be held at Olympia, London, from March 2 to March 27.

● The Rt. Hon. the Earl of Feversham, D.S.O., D.L., succeeds the Rt. Hon. the Earl of Dunmore, V.C., D.S.O., M.V.O., as President of the Timber Development Association.

● The United Steel Companies Limited announce that they have appointed Commander K. H. S. Cohen, C.M.G., as their European adviser. For some time the Company have wished to make a closer study of the trends in European industry and economics and Commander Cohen is to undertake this work on their behalf.

● A new rust-inhibiting lead paint has been introduced under the name "Calpinol" by Messrs. Foster, Blackett & James, Ltd. "Calpinol," a Calcium Plumbate paint, is the result of considerable research and it is claimed not only to provide protection against rust but where a paint film has been damaged, it will prevent rust creep. "Calpinol" has a smooth egg-shell finish which will not crack or flake, and has a spreading rate of 100 square yards per gallon. It is extremely resistant to moisture and salt water, weathers evenly and uniformly and can be stored indefinitely. "Calpinol" can be used as a primer for new galvanized iron without the necessity of weathering or pre-treatment. The paint is available in four colours, Stone, Venetian Red, Green and Grey. It is supplied in 5-gallon drums and in tins of one and half gallons.

ANSWERS TO LAST WEEK'S QUIZ

1. (c).
2. Rectangular figure with curved sides and rounded corners, i.e., shape of Television screen.
3. (a) O. Campbell Jones.
   (b) Inigo Jones.
   (c) Michael Scott.
   (d) Michael Rosenaur.
4. Royal Lion; Greyhound of the Tudors; Yale of the Beauforts; Welsh Dragon; White Horse of Hanover; White Lion of Mortimer; Unicorn of Scotland; Griffin; Bull of Clarence; Falcon.
5. Howard Robertson, P.R.I.B.A.
6. 1850.
7. There is no Professor of Architecture at either Oxford or Cambridge. The Slade Professor of Fine Art at Oxford University is Professor Ernst Gombrich.
8. Barnett Freedman.
9. (a) An octagonal spire on a square tower which has no parapet.
   (b) The removable panel to the access pocket in a pulley stile.
   (c) Dividing wall between chimney flues.
   (d) Brick rendered unusable for building by cracking during manufacture.
10. Pakistan.
11. Finchley. H. Belloc.
12. (a) S. E. Dykes Bower.
    (b) Sir Hugh Casson.
    (c) Professor Basil Ward.
    (d) le Corbusier.
13. (a).
14. 2, Park Street, W.1.
15. (a) No limit laid down.
    (b) £25,000.

CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate : (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

OPEN

BUILDING

AMMANFORD U.C. (a) 3 blocks of 4 flats, Norman Road site. (b) Engineer and Surveyor, Council Offices. (c) 3gns. (e) Jan. 4.

* * *

ANGLESEY C.C. (a) New farmhouse and buildings near Brynsiencyn. (b) County Architect, Shire Hall, Llangefni. (c) 2gns. (e) Jan. 14.

* * *

BERKHAMSTED U.C. (a) 22 houses, Durrants Estate. (b) Engineer and Surveyor, Civic Centre. (c) 2gns. (e) Jan. 18.

* * *

BERKSHIRE C.C. (a) Wantage Secondary Modern School for 300 pupils, Springfield Road. (b) County Architect, Wilton House, Parkside Road, Reading. (c) 2gns. (e) Jan. 14.

* * *

BRIDGEND U.C. (a) 6 shops with flats above, Cefn Glas site. (b) Engineer and Surveyor, Council Offices. (c) 5gns. (e) Jan. 9.

* * *

***BRIGHTON B.C.** (a) Conversion of and additions to 3, 4, and 5, Vernon Gardens, and 24, Windlesham Road, to form a home for aged persons. (b) Borough Engineer, 26-30, King's Road. (c) 2gns. (e) Jan. 9. See page 28.

* * *

DORSET C.C. (a) First stage of Poole Technical College. (b) County Architect, County Hall, Dorchester. (d) Jan. 4. (e) Feb. 19.

* * *

EASTBOURNE B.C. (a) (1) Gardener's cottage and completion of sports pavilion, The Hinds Land, Lower Willingdon, and (2) public lavatories, Brassey Avenue, Hampden Park. (b) Borough Engineer, 2-4, Saffrons Road. (c) 2gns each contract. (d) Jan. 5. (e) Feb. 15.

* * *

EIRE—DONEGAL C.C. (a) District hospital at Dungloe, comprising (1) main hospital block, (b) single-storey laundry block, workshops, etc. (3) site works, roads and drainage. (b) Messrs. F. D. Shorthall and Co., 10, Leinster Street, Dublin. (c) £25. (e) Feb. 3.

* * *

ESSEX C.C. (a) Police station and houses, including demolition. (Approx. value of contract £30,000.) (b) County Architect, County Hall, Chelmsford. (d) Jan. 9.

* * *

GREAT YARMOUTH B.C. (a) Herman Infants' and Junior School, Gorleston-on-Sea. (b) Schools Architect, 22, Euston Road. (c) 2gns. (e) Feb. 8.

* * *

LANCASHIRE C.C. (a) First stages of extensions to Salford Royal Technical College. (b) County Architect, County Hall, Preston. (d) Jan. 4.

* * *

LEIGHTON BUZZARD U.C. (a) 18 3-storey flats and 6 lock-up garages, with roads, sewers and site works at East Street, as Group A; 4 aged persons' bungalows in Roosevelt Avenue, as Group B. (b) Council's Architect, Bridge Street. (c) 2gns.

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London's Finest new & secondhand Value
ARCHITECTS PLAN CHESTS
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Safes Chairs etc.
M. MARGOLIS
378-380 EUSTON ROAD LONDON N.W.1. Phone: EUS. 1333

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"KENWIN STUDIO"
KENN BALDWIN SMITH, A.R.C.A.
(DIPLOMA MURAL PAINTING)
LITTLE SHELFORD, CAMBS.

ASPHALT WORK TO ALL B.S.S.
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PALACE GATES STN., N.22 Bowes Park 1021-2

HARDWOOD FLOORING
"EX STOCK"
Block or Strip Flooring in ½", ⅝", ¾", 1" and 1¼" thicknesses, in the following species, grades suitable for Civic, Domestic and Factory Floors :— Agba, Anyan, Apa, Beech (English, American, Yugoslavian, Japanese), Birch (Finnish, Japanese), Ekki, Emeri, Greenheart, Guarea, Gurjun, Idigbo, Iroko, Jarrah, Kanluang, Keruing, Krabac, Mahogany, Maple, Meranti, Muhuhu, Oak (English, American, Austrian, Japanese, Silky), Omu, Opepe, Podo, Ramin, Rauli, Sapeli, Sepitir, Serayah, Teak, Walnut, etc.
WILLIAM THORNTON & SONS, LTD.
Joinery Dept., 38, WELLINGTON ROAD, LIVERPOOL, 8 Tel. : Lark Lane 1921/4.
Grams : Thornpool, Liverpool.

LLANDOVERY B.C. (a) 20 houses in 4 blocks of 4 and 2 blocks of 2, with roads and sewers, Caefelin-Caerau site. (b) Borough Surveyor, Assembly Rooms. (c) 3gns. (e) Jan. 9.

* * *

MALTBY U.C. (a) 50 houses, Cliff Hills Estate. (b) Architect and Surveyor, Council Offices, Rotherham Road. (c) 2gns.

* * *

MANCHESTER C.C. (a) Poundswick County Grammar School, Wythenshawe. (b) City Architect, Town Hall. (c) 1gn. (e) Jan. 20.

* * *

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) 8 villas to provide accommodation at Mental Deficiency Hospitals within the region. (b) R. Dobbin, Secretary to the Board, "Dunira," Osborne Road, Newcastle-upon-Tyne, 1; stating for which hospital or hospitals they wish to tender (Prudhoe and Monkton Hospital; St. Luke's Hospital, Middlesbrough; Aycliffe Hospital, Heighington; and St. George's Hospital, Morpeth).

* * *

N. IRELAND — BALLYCASTLE. (a) Additions and alterations for conversion of fever block at Dalriada Hospital, Ballycastle, into nurses' home. (b) Secretary, Dalriada Hospital, Ballycastle. (c) 3gns. (e) Jan. 12.

* * *

N. IRELAND—CASTLEREAGH R.C. (a) 34 houses with ancillary works, Comber Road, Dundonald. (b) Council Office, 51, Lisburn Road, Belfast. (c) £5. (e) Jan. 8.

* * *

N. IRELAND—GREGGAN. (a) Primary school at Craggan Derry. (b) W. H. McEvoy, 73, May Street, Belfast. (c) 10gns. (e) Jan. 22.

* * *

OSSETT B.C. (a) 8 houses, Kingsway; 10 houses, Dimple Wells Road; 22 houses, Headlands Road. (b) Borough Surveyor, Town Hall. (e) Jan. 13.

* * *

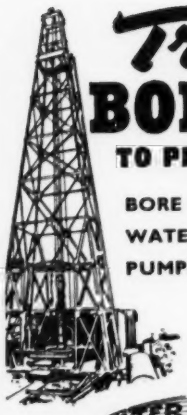
PETERBOROUGH C.C. (a) 88 dwellings, Dogsthorpe North Estate. (b) City Engineer, Town Hall. (c) 2gns cheque payable to City Treasurer. (e) Jan. 18.

* * *

PETERBOROUGH B.C.—(a) Single-storey building as extension to County Grammar School for Girls. (b) Messrs. Ruddle and Wilkinson, Long Causeway Chambers. (c) 2gns. (e) Jan. 29.

* * *

PORTSMOUTH C.C.—(a) Old people's homes at Waterworks Rd., Farlington. (b) City Architect, 1, Western Parade. (c) 3gns. (d) Jan. 8.



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NU-SWIFT LTD · ELLAND · YORKS
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SCOTLAND—BATHGATE B.C.—(a) 39 blocks comprising 100 houses at Kirkton and Boghall site; (all trades). (b) Messrs. J. A. W. Grant, 36, Melville St., Edinburgh.

* * *

SCOTLAND — DUNBARTONSHIRE.—(a) 116 houses on Haldane site, Jamestown, for Scottish Special Housing Association, Ltd. (all or separate trades). (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh, 12.

* * *

SHEFFIELD C.C.—(a) (1) 132 dwellings and (2) 95 dwellings on section 7 of Greenhill Estate. (b) City Architect, Town Hall, 1. (c) £2. (e) Jan. 18.

* * *

STROUD U.C.—(a) 30 houses, Bisley Road. (b) Engineer and Surveyor, Council Chambers, High St. (e) Jan. 13.

* * *

STOCKSBRIDGE U.C.—(a) 40 flats in 10 blocks of 4 in Ridal Avenue. (b) Council's Surveyor, Town Hall. (e) Jan. 25.

* * *

SWALE R.C.—(a) 18 houses, etc., at Borden. (b) Engineer and Surveyor, 48, Bell Rd., Sittingbourne. (c) 3gns. (e) Jan. 11.

* * *

TAVISTOCK R.C. (a) 2 pairs of houses, external services and sewage disposal system at Sampford Spiney. (b) Messrs. Rossington and Fogden, Drake Road. (c) 3gns. (e) Jan. 19.

* * *

TUNBRIDGE WELLS B.C. (a) 8 flats and 22 houses, Sherwood Estate. (b) Borough Surveyor, Town Hall. (c) 2gns.

* * *

WAKEFIELD C.C. (a) Thornes House Bi-Lateral School. (b) City Engineer, Town Hall. (c) 2gns. (e) Jan. 26.

* * *

WILTSHIRE C.C. (a) First instalment of a junior school at Oldfield Park, Westbury. (b) County Architect, County Hall, Trowbridge. (c) 2gns. (d) Jan. 6. (e) Jan. 27.

* * *

WILTSHIRE C.C. (a) First instalment of an infants' school at Highworth. (b) County Architect, County Hall, Trowbridge. (c) 2gns. (d) Jan. 6. (e) Jan. 27.

* * *

WORTLEY R.C. (a) 48 2-storey flats, 46 houses and 12 bungalows, Lane End, Chapeltown. (b) Messrs. Husband and Co., 388, Glossop Road, Sheffield, 10. (c) 5gns. (e) Jan. 25.

BENHAM
COOKING APPARATUS
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ELLARD ESTATE SLIDING DOOR GEAR

ELLARD "Estate" Sliding Door Gear has again been specified for a large housing estate: the People's Houses, Canterbury, Kent. "Estate" Sliding Door Gear offers maximum economy in use of space. For easy access and efficient action, garage doors should be fitted with ELLARD "Radial" Sliding Door Gear. The illustration below shows a typical domestic garage with sliding doors running on ELLARD "Radial" Door Gear

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ELLARD Sliding Door Gear has been specified for flats and housing schemes by: London County Council; Canterbury and Peterborough Corporations; Eston, Mexborough, Rushden, Sawbridgeworth and Wellingborough U.D.C.s; Easington and Sedgefield R.D.C.s; and for British Railways Housing Estates, Southall; Coronation Bungalows, South Shields; Kytes Settlement Estate, Watford; Newton Aycliffe and Stevenage New Towns.

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BM1

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The *Proved* Emulsion Paint

Here's an impressive example of the remarkable improvement which application of Hangers **FABRIGUARD** can make to difficult surfaces. The photograph shows Yorkshire's Ideal Flour Mill, Selby Grain Silo, before and after treatment with **FABRIGUARD**. The surface treated was very rough, and during the war a Bituminous Based Camouflage Paint had been applied: oil Paint would not have been suitable, as bleeding would almost certainly have occurred. **FABRIGUARD** was used, and has now transformed this Silo into a landmark.

The 'transformation treatment' was: one coat **FABRIGUARD** Primer Sealer; one coat **FABRIGUARD** Flat, followed by Porcelain Gloss Finish in Broken White.

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Yorkshire's Ideal Flour Mill, Selby Grain Silo, before and after application of Fabriguard. Contractor: Messrs. Wetheralds Ltd., Leeds.

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Rate 1/6 per line, minimum 3/- *Close for press 1st post Monday for following Thursday Issue*

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order 1952.

LONDON ELECTRICITY BOARD.

JUNIOR QUANTITY SURVEYOR.

APPLICATIONS are invited for the above position in the Chief Engineer's Department in Central London. Applicants must have had experience in working up in all trades, and the successful candidate will work under the direction of a Chartered Quantity Surveyor.

The post is graded under Schedule "C" of the National Joint Board agreement as Grade 9—£415 per annum, rising to £600 12s per annum inclusive of London Allowance.

Application forms obtainable from Secretary, 46, New Broad St., E.C.2, to be returned completed within 14 days of the publication of this advertisement. Please enclose addressed envelope and quote ref: V/1695/A on envelope and all correspondence. [7535

ROYAL BURGH OF INVERNESS.

BURGH ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the appointment of PERMANENT CHIEF ASSISTANT ARCHITECT. Grade A.P.T. IV, £550 × £15 × £15 × £15 to £595. The appointment is subject to the N.J.C. conditions of service and the terms of the Local Government Superannuation Act, 1937.

Applicants should be registered Architects, and have had considerable experience in the design and construction of Municipal Housing and usual Local Authority building undertakings. The successful applicant will be required to pass a medical examination and his housing position will be given consideration. Applications giving age, qualifications, present and past appointments with salaries, together with the names and addresses of three referees to be sent to the undersigned within ten days of this publication.

J. BLACKBURN, F.R.I.B.A.(DIP.), T.P., A.M.T.P.I., M.R. SAN.I.,
Burgh Architect.

11, High Street,
Inverness.
21st December, 1953. [7544

NATIONAL COAL BOARD.

NORTH EASTERN DIVISION.

APPLICATIONS are invited for the following appointments to the staff of the Divisional Chief Architect at Denaby Main, near Doncaster.

(a) ARCHITECT Grade II £600 × £25—£650 × £30—£900.

Applicants should have passed the final examination of the Royal Institute of British Architects and have wide practical experience in preparing sketch plans, working drawings, specifications and the supervision of contracts.

Committee experience is desirable but not essential.

In the first instance the work will consist chiefly of Social Welfare Projects, i.e., Community Centre, Institutes, Sports Pavilions, etc.

(b) ASSISTANT ARCHITECT Grade II £440 × £20—£540.

Applicants should have passed the intermediate examination of the Royal Institute of British Architects and have had not less than 3 years' subsequent practical experience, and should be able to prepare sketch plans and working drawings under supervision and have a sound knowledge of building construction.

The work for this post will consist chiefly of Pithead Baths, Canteens, Medical Centres, Offices, Laboratories, etc.

The point of entry into the above scales will depend on qualifications and experience.

The above appointments are for the established staff and are subject to the Board's Superannuation Scheme.

Application forms may be obtained from Mr. J. A. Dempster, F.R.I.B.A., Divisional Chief Architect, National Coal Board, Denaby Main, Nr. Doncaster. [7539

APPOINTMENTS—contd.

BROMSGROVE URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT.

THE Council invite applications for the appointment of an ARCHITECTURAL ASSISTANT on the staff of the Engineer and Surveyor at a salary in accordance with A.P.T. Grade III of the National Salary Scale (£525—£570).

Applicants should have passed the A.R.I.B.A. Intermediate Examination or its equivalent, and should have had experience in the preparation of plans, specifications, etc., for architectural work usually undertaken by a local authority, and in particular, housing.

Housing accommodation will be made available, if in the opinion of the Council, it is warranted.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the person appointed will be required to pass a medical examination.

Applications, stating age, giving full particulars and qualifications and experience, together with one copy of a recent testimonial, must be delivered to the undersigned not later than Tuesday, 12th January, 1954. In addition the names of two persons to whom reference can be made must be enclosed with the application.

F. A. JESSOP,
Clerk of the Council.

Council House,
Bromsgrove.
17th December, 1953. [7538

LANCASHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

APPLICATIONS are invited for the following appointment on the permanent staff:

SENIOR ASSISTANT ARCHITECT A.P.T. Grade VIII (£760—£835).

Application forms, to be returned by Monday, 11th January, 1954, obtainable from the County Architect, County Hall, Preston. [7530

COUNTY BOROUGH OF EAST HAM.

CHIEF QUANTITY SURVEYOR for Borough Engineer's Department. Salary £710-£835 (Grade A.P.T. VII/VIII) plus London Weighting. Salary in excess of minimum may be paid according to qualifications and experience. A subsistence allowance may be paid to the person appointed if unable to obtain suitable housing accommodation.

Further details and application form (returnable by 15th January, 1954) from Town Clerk, Town Hall, East Ham, E.6. [7541

COUNTY BOROUGH OF EAST HAM.

TEMPORARY ESTIMATOR FOR BUILDING WORKS in Borough Engineer's Department. Salary £595-£645 (Grade A.P.T. V). London Weighting is paid in addition. Salary in excess of minimum may be paid according to qualifications and experience. A subsistence allowance may be paid to the person appointed if unable to obtain suitable housing accommodation. Further details and application form (returnable by 15th January, 1954) from Town Clerk, Town Hall, East Ham, E.6. [7542

CONTRACTS

COUNTY BOROUGH OF BRIGHTON.

TENDERS are invited for:—

CONVERSION OF AND ADDITIONS TO 3, 4, 5, VERNON GARDENS, AND 24, WINDLESHAM ROAD, INTO A HOME FOR AGED PERSONS.

Bills of Quantities and forms of tender may be obtained from the Borough Engineer and Surveyor, 26-30, King's Road, Brighton, on or after 28th December, 1953, on receipt of a returnable deposit of £2 2s.

Tenders are to be delivered to the Town Clerk in plain sealed envelopes by noon on Saturday, 9th January, 1954.

W. O. DODD,
Town Clerk.
[7537

EDUCATIONAL

I.A.A.S. FORTHCOMING EXAMINATIONS.

THE Incorporated Association of Architects and Surveyors will hold the following examinations during the week beginning 3rd May, 1954.

ARCHITECTS SECTION: Intermediate grade. Final grade (Parts I and II).

QUANTITY SURVEYORS SECTION: Intermediate grade. Final grade (Parts I and II). Direct Final grade.

BUILDING SURVEYORS SECTION: (Municipal & Non-Municipal) Intermediate grade. Final grade (Parts I and II). Direct Final grade.

LAND SURVEYORS SECTION: Intermediate grade. Final grade. Direct Final grade.

FIRE SURVEYORS SECTION: Direct Associate grade (Parts I and II).

The examinations will be held in London, and at selected provincial centres. Applications from candidates for permission to sit, made on the prescribed form, must be received not later than Monday, 8th February, 1954.

Full information to the General Secretary, I.A.A.S., 75, Eaton Place, London, S.W.1. [7510

COMPETITIONS

ROYAL BURGH OF KIRKCALDY.

THE Royal Burgh of Kirkcaldy invite Architects to submit in competition, designs for a CREMATORIUM to be erected at DUNNIKIER PARK, KIRKCALDY.

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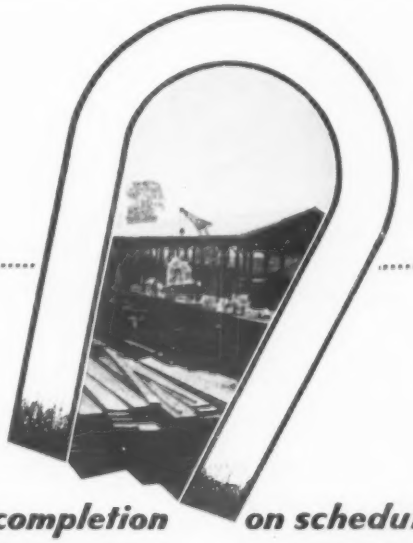

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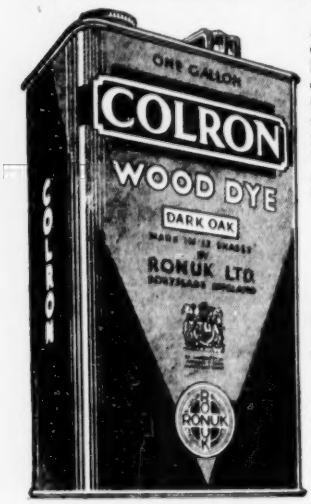

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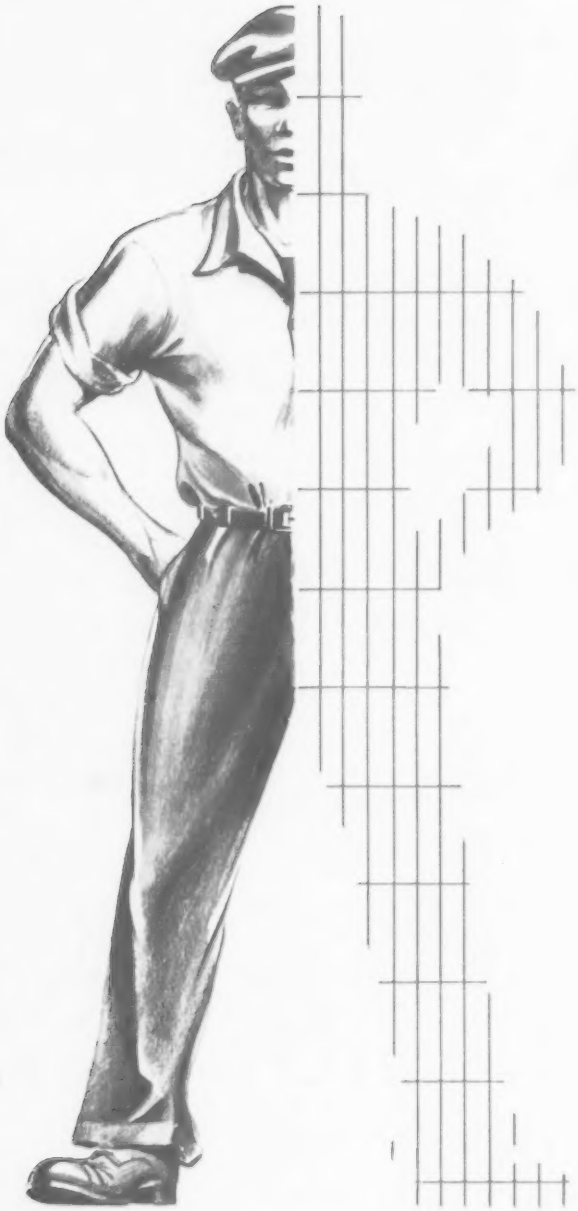

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